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Emerging genres, dangerous classifications: The kairos of digital composing policy

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EMERGING GENRES, DANGEROUS CLASSIFICATIONS: THE *KAIROS* OF DIGITAL COMPOSING POLICY

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For Michael Sills

Angelic Doctor, you now know more than we will ever learn,

until we meet again.

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ABSTRACT

Sills, Ellery. Ph.D., Purdue University, August 2016. Emerging Genres, Dangerous Classifications: The *Kairos* of Digital Composing Policy. Major Professor: Patricia Sullivan.

Emerging Genres, Dangerous Classifications: The Kairos of Digital Composing Policy argues that writing policy infrastructure plays a significant (if often invisible) role in affording emerging digital genres in rhetoric and composition. Within the last few decades, the accelerating transformations and instabilities of emerging genres have posed a challenge for contemporary writing programs, which demonstrate a persistent wariness over incorporating digital composing into their mission. In response to this challenge, national educational associations have issued a growing number of policy statements meant to encourage a broader understanding of composing in the classroom. Curiously, relatively little scholarly attention has been paid to the potential impact of policy statements upon writing programs' digital and multimodal composing practices. This dissertation asserts that writing policy statements' impact often appears as invisible because of its status as *infrastructure.* According to Star and Ruhleder (1996),

infrastructure "occurs when local practices are afforded by a larger-scale technology, which can then be used in a natural, ready-to-hand fashion" (p. 114). Because it is taken for granted as "natural" and "ready-to-hand," infrastructure is experienced as invisible by its users. In an effort to make writing policy infrastructure visible, this dissertation uses Bowker and Star's notion of infrastructural inversion as a methodological framework with which to study these infrastructures' kairotic effects upon programs' digital composing practices.

A case study of one particular writing policy infrastructure, the 2014 revision of the Council of Writing Program Administrators' Outcomes Statement for First-Year Composition (or OS 3.0), examines how the OS 3.0 tries to afford emerging digital genres in writing programs. Reporting on his interviews with members of the 2014 Outcomes Statement Revision Task Force, the author explores the conflicting interpretations embedded in key terms used in the OS 3.0, such as *composing*, *technology*, *genre*, and *disciplinarity*. Initial findings from the interviews indicate that the Statement revisers were very aware of the fleeting *kairos* of their revised document, which led them to negotiate between not "pushing the envelope" too much or "going out of date" too soon. Accordingly, readily acknowledging their (and the field's) conflicting interpretations of the above terms, the Task Force chose to treat these terms as *boundary objects*, or ""objects which are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites" (Star & Griesemer, 2015, p. 176). The Task Force thereby sought to ensure that digital composing outcomes could be broadly and flexibly adapted

across writing programs. These findings suggest that writing policy infrastructures can successfully afford digital and multimodal composing practices by kairotically appealing to a disciplinary “ethics of ambiguity” (Bowker & Star, 1999, p. 313).

CHAPTER ONE: EMERGING GENRES AND AFFORDING INFRASTRUCTURES IN RHETORIC AND COMPOSITION

> *My third and final expression is the deicity of technology. Deixis, linguistically, refers to words like now and then, words whose "meanings change quickly depending on the time and place in which they are uttered" (Leu et al.) or read…Literacy is deictic (Yancey, 2004, p. 318).*

Sometimes, you have a moment. In "Composition in a New Key: Not Only in Words," presented as a CCCC Chair's Address and published in 2004, Kathleen Blake Yancey observes that the field of composition is witnessing a "tectonic change" in public literacy, in which the idea of "writing" comes to mean more than (or other than) "'words on paper,' composed on the page with a pen or pencil by students who write words on paper." She explicitly identifies this moment as one of genre change that is facilitated by new technologies: ""Never before have the technologies of writing contributed so quickly to the creation of new genres." She wonders, moreover, whether the 21st century writing public, having "learned these genres outside of school," will find that schools and universities have simply "become anachronistic" (pp. 300, 302). She is anxious that the field of composition participate in this moment of genre change. However, when faced with this formulation, I find myself wondering about those who miss their moment—those systems and institutions who, in fact, miss the moment indefinitely, who delay the

moment of genre change with little immediate effect on their longevity. Even when they miss this moment, they may retain the dangerous power of classification.

Classifying digital and multimodal composing practices as genres is dangerous, because classification itself is a dangerous act. Science and technology scholars Geoffrey Bowker and Susan Leigh Star (1999) acknowledge this at the beginning of their groundbreaking work *Sorting Things Out*: "Each standard and each category valorizes some point of view and silences another. This is not inherently a bad thing—indeed it is inescapable. But it *is* an ethical choice, and as such it is dangerous" (p. 5). To construct categories of any kind is inevitably to privilege some concepts, objects, individuals or groups and to exclude others; inevitably, "classifications and standards give advantage or they give suffering" (p. 6). Genre theory shares in this inevitable inequity. Rhetorical genre studies (RGS) scholars attuned to the ideological implications of generic classification and constraint, such as Richard Coe, Lorelei Lingard, and Tatiana Teslenko, note that genre theorists must ask of any given genre, "'What does it do?' and 'For whom does it work?'" and they warn, tellingly, that "genres survive because they work for someone (however egregiously or oppressively for others)" (p. 3). This, indeed, is what Star insists that we ask of any classification system: *Cui bono*? Who benefits? (Star 1995, p. 3). In the case of rhetoric and composition programs, granting a composing practice the legitimacy of a "genre" can serve to empower those invested in that genre and potentially disempower practitioners of other composing practices.

Classifying digital genres is dangerous, then, because Composition Studies has historically privileged apparently stable, familiar, print-oriented genres, while it has historically struggled with the sociomaterial instabilities and innovations of new media.

In the introduction to their collection *Multimodal Literacies and Emerging Genres* (2013), Tracy Bowen and Carl Whithaus aptly address Composition Studies's present struggles with digital genres, noting that, "with Twitter, Facebook, and other social networking sites, students represent themselves textually in a myriad of contexts simultaneously like ever before" and arguing that that, as a result, "genres [are] not just transforming, they are fundamentally unstable—being made and remade within months rather than years." Even as a significant number of students, instructors, and writing program administrators seek to better incorporate digital genres into research and pedagogy, there is widespread uncertainty about how this is possible given their rapid metamorphoses; or, in Bowen and Whithaus's words, "how do we teach students to identify, investigate and interrogate genre within this 'new normal' of instability?" (p. 9). This characterization of digital composing practices as unstable, transient and inherently difficult to teach and study certainly has merit, but it also suggests writing programs' continued wariness when it comes to incorporating digital composing into their mission. As Jonathan Alexander and Jacqueline Rhodes argue in *On Multimodality: New Media in Composition Studies* (2014),

> Bowen and Whithaus note that the act of encouraging multimodal compositions itself creates spaces within which new genres emerge, whether formally named or not (6). Yet they hesitate: "For writing program administrators, multimodal literacies bring new challenges—faculty and students need to explore the potentials of multimodal composing without losing the programmatic structures which facilitate the development of discrete writing skills" (9). What are those skills? Bowen and Whithaus do not spell them out, but we can certainly discern

> here a tension between the new and emerging genres and the more traditional (one can assume essayistic) genres. Perhaps Bowen and Whithaus, writing from relatively new stand-alone writing programs, are highly sensitive to the potential fragility of the recently constructed disciplinarity of composition studies—a disciplinarity threatened by genres that do not yet even have names. After all, what is a discipline without discrete objects of study? How do we accommodate such looseness while positing our own discrete borders? Again, new media and multimodality—even in the friendliest hands—can seem like a potential threat (pp. 44-45).

Alexander and Rhodes's point is well taken: Composition Studies, as a field, continues to privilege alphanumeric writing over broader understandings of composing. Any effort to cultivate this broader understanding of composing within writing programs is often, inadvertently, treated as a "potential threat." Indeed, Alexander and Rhodes implicitly support Bowker and Star's warnings about the dangerous power of classification: digital composing is presented here as a residual category of miscellaneous practices, "genres that do not even have names." To name a genre is to grant it legitimacy, and in various areas of the field, that legitimacy is frequently withheld.

In genre theory scholarship, the unease with digital genres' instability is evident. For example, in the 2009 collection *Genres in the Internet*, contributors frequently appear anxious to preserve genre stability in the face of an implied internet "threat." As Carolyn Miller and Dawn Shepherd caution, "stability and recurrence have perhaps been underconceptualized, an oversight made all the more urgent by the digital environment of

the internet. In fact, given the proliferation of change that the internet represents and makes possible, it's remarkable that anything as stable as a genre has arisen there at all" (p. 265). Similarly, Janet Giltrow and Dieter Stein note that "[genre's] twin obligations to repetition-over-time and timeliness can be an uneasy couple, and when time accelerates, as in the discourse arenas of Internet communication, genre may…seem a likely casualty" (p. 20). Given an intellectual desire to recuperate genre as a "stable classifying concept" (Miller, 1984, 23), genre theorists have frequently responded to the threat of new media by minimizing the medium's role in generic practices and bracketing its instabilities. For example, in their retrospective analysis of the generic potentialities of blogs, "Questions for Genre Theory from the Blogosphere," Miller and Shepherd conclude that blogging might afford generic practices but blogs as artifacts are not genres: "*The* blog, it seems clear now, is a technology, a medium, a constellation of affordances—and not a genre" (p. 283). Their effort to clearly distinguish medium from genre is certainly understandable, but it potentially has the undesired side effect of privileging more conventional and identifiable generic forms.

Writing program administration, as well, evidences this unintentional privileging of conventionality, and the issue of digital and multimodal assessment in particular faces a struggle for priority. Many composition instructors engaged in new media assessment often report acting in the absence of immediately suitable models and frameworks with which to make sense of the work being assessed. For example, in their 2006 survey of 162 graduate students in rhetoric and composition programs, Daniel Anderson and several colleagues found that writing programs' professional development opportunities offered "little help in conceptualizing multimodal assignments, assessing student

responses, or securing the hardware needed to undertake such assignment" (Anderson et al., 2006, p. 79). As a result, 83% of respondents indicated that individual instructors were left to their own resources when it came to multimodal assignment design and assessment (p. 70). Likewise, in a 2009 survey of composition instructors, Elizabeth Murray, Hailey Sheets and Nicole Williams discovered that 46% of these instructors "could not say with ease that assigning multimodal projects happens in their classroom without some hesitation," 16% identified assessment concerns as their primary reason for discomfort, and 76% "could not confidently assert they had been well-trained" in multimodal assessment. Tellingly, several of the composition instructors surveyed worked at Ball State University, an institution which, at the time of the survey, required program-wide print-based rubrics to assess students' new media compositions. The fact that only 7% of instructors at this institution reported using their writing program's print-based rubric, whereas 37% reported using another rubric and 31% reported using "other" means of assessment, reveals that programmatic efforts to subordinate the fluidity of multimodal genres to the stability of traditional print-oriented genres are ongoing, yet remain deeply problematic.

In response to this persistent scholarly, pedagogical and programmatic resistance to treating digital and multimodal composing practices on their own terms (as opposed to the terms of alphanumeric, essayistic texts), national professional associations have begun working to change the classifications and standards surrounding composing in writing programs and classrooms. Several of these emerging classifications and standards have been introduced in national organizations' reports, position statements and

assessment frameworks.[1] These national efforts, however, have faced multiple challenges, as there is ongoing debate about what constitute appropriate goals, means, and outcomes for digital and multimodal composing. One thread of this debate concerns how to reconcile "technology content standards and writing content standards," which "more often run parallel to one another than intersect" (National Writing Project, 2010, p. 93). On the one hand, instructors may feel it is unfair to assess students on mastering a recently introduced technology in the classroom; on the other hand, they may struggle with applying writing content standards to disparate media. Thus, a related thread of debate is the use of traditional writing rubrics to assess new media texts. When the National Writing Project's (NWP) 2011 Multimodal Assessment Project applied such rubrics to assess new media texts, it found that "parts of those traditional writing assessments did apply, but an equal number of categories did not work" (Jimerson, 2011). In the face of these debates, standards and classifications remain fluid, requiring additional work to determine what students might need or benefit from.

In spite of the above challenges and points of contention, however, the documents mentioned above do share a distinctive *public policy* trend in favor of encouraging digital and multimodal composing practices in the composition classroom. I use the term "public policy" advisedly. Though national educational associations often do not enact public

[1] Educational reports, position statements and assessment frameworks articulating emerging classifications and standards include the following: the National Commission on Writing's *The Neglected "R": The Need for a Writing Revolution* in 2003; the National Council of Teachers of English's (NCTE) *Position Statement on Multimodal Literacies* in 2005, *21st Century Literacies* in 2007, and *Writing Now* in 2008; the Council of Writing Program Administrators' (CWPA) revisions of the *Outcomes Statement for First-Year Composition* in 2008 and 2014; the NCTE, CWPA and National Writing Project's (NWP) joint *Framework for Success in Postsecondary Writing* in 2011; and the NWP's *Multimodal Assessment Project* in 2011 (National Writing Project, 2010, p. 2; Lutkewitte, 2014).

policy in any legal or regulatory sense, their position statements can have significant (material and discursive) public effects, as Patricia Ericsson (2003a) has noted:

> The documents that set standards (like the NCTE/IRA Standards for the English Language Arts) and outcomes (like the WPA Outcomes Statements) are the primary statements about our disciplinary knowledge that those outside the discipline ever hear about or see. Even though they are not typically seen as public policy documents, they serve that purpose. These documents communicate our disciplinary knowledge to others when they are used as the basis for discussion about developing courses, revising curriculum, training writing teachers and those who teach writing in the disciplines, and assessment (p. 16).

The documents that set standards and outcomes, in other words, constitute (for better or worse) the "public face" of our discipline; they promise our imprimatur of legitimacy upon any project or work carried out in their name.

Given their central place in our public rhetoric, then, as well as the "systemic overhaul" (Dryer et al., 2014, p. 130) various educational associations have tried to enact regarding such standards and classifications, it is curious that relatively little scholarly attention has been paid to the potential impact of these policy statements on digital and multimodal composing practices in composition classrooms and programs. If we take the WPA Outcomes Statement (OS) as a key example, substantial evidence of this impact is still sorely lacking. To be sure, a number of texts have addressed the OS's significance and consequence for First-Year Composition, as well as writing programs and educational institutions in general. Collections such as *The Outcomes Book* (Harrington,

Rhodes, Fischer, & Malencczyk, 2005) and *The WPA Outcomes Statement: A Decade Later* (Behm, Glau, Holdstein, Roen & White, 2013) have demonstrated the OS's adaptability for institutions and initiatives as varied as high schools, community colleges, stand-alone writing programs, Writing Across the Curriculum programs, technical writing programs, and writing about writing curricula. More recently, in *Very Like a Whale: The Assessment of Writing Programs*, Edward White, Norbert Elliott, and Irvin Peckham (2015) note that "many publishers now link textbook features to the Outcomes Statement" in order to satisfy programmatic demands for outcomes-based assessment (p. 16). One might conclude, from this extensive scholarship on the Outcomes Statement's growing influence, that its revisions to better incorporate digital and multimodal composing practices would have a similar positive programmatic effect.

However, the idea that the WPA OS might have significant or positive impact on digital and multimodal composing practices in writing programs has occasioned a good deal of skepticism from new media scholars and practitioners. When, in 2006, CWPA members were revising the Outcomes Statement to include a new "Composing in Electronic Environments" section, rhetoric and composition figures engaged in new media work, such as Jeff Rice, Collin Brooke, and Daniel Anderson, questioned the revision's relevance to digital and multimodal composing. Jeff Rice, for example, expressed concern that those involved in the revision were "not the people inventing the practices regarding pedagogy and new media…there are many voices out there typically ignored by the old guard." Furthermore, he challenged whether designing specific outcomes surrounding digital technologies was either practicable or necessary: "How do you know that the concept of 'Outcomes' even applies anymore, particularly when

specific types of new media writing practices resist such efforts?" Collin Brooke, too, argued that a revised outcomes statement would have little effect on already existing new media practices in writing programs, and he further suggested that it would not expand such practices:

> I agree that 'there is plenty of work to be done' [in encouraging digital composing in programs] but I wonder if an outcomes statement will push any of this work along. When I go to Dan[iel Anderson]'s blog and read about his teaching with podcasts and movies, for instance, I'm not under the impression that an outcomes statement moved his teaching in that direction. I'm under the impression that other forces contributed to his pedagogy.

Rice and Brooke both suggest that an outcomes statements' impact on new media composing would be belated and minimal at best and obstructive at worst. They rightly point out that writing policy statements succeed emerging composing practices and thus necessarily do not play an active role in these practices' emergence. Moreover, Rice in particular emphasizes the fluidity and instability of new media practices, indicating that they "resist" the stabilizing influence of writing policy.

Indeed, the research done by Emily Isaacs and Melinda Knight in the summer of 2009, following soon after the inclusion of the "Composing in Electronic Environments" section into the OS, would seem to vindicate Rice and Brooke's suspicions about policy statements' influence on digital composing. Reporting on their findings in "Assessing the Impact of the Outcomes Statement" (2013), Isaacs and Knight concluded that "the fifth area of the WPA OS, 'composing in electronic environments,' has had virtually no

impact at all" out of a sample of 101 colleges and universities. The two attributed this fact to the telling absence of WPA OS adoptions amongst the schools they surveyed, as well as the reality that "even Web 1.0 has not had much effect on actual practice in composition classrooms and programs" (p. 301). Given this rather dismal account of the Outcomes Statement's impact, it seems eminently reasonable to doubt that policy statements can contribute much to the growth of emerging composing practices and to insist on a richer discussion of their contribution.

This dissertation is an effort to provide some of that richer discussion. It argues that policy statements' contributions may not always be readily apparent—may, indeed, be invisible or almost invisible. For example, writing policy statements may not necessarily initiate new composing practices in and of themselves; however, they can serve to afford and sustain such practices. What follows is an analysis of writing policy statements as infrastructures[2], and an exploration of how these policy infrastructures can successfully afford digital and multimodal composing practices. Such affordance may operate largely invisibly, but a dogged research methodology can serve to trace its presence and its impact.

[2] Infrastructure will be discussed in more depth in the section "What (When) is Infrastructure?" that follows, as well as in Chapter Two. However, a quick definition is in order here. Infrastructure, according to Star and Ruhleder (1996), "occurs when local practices are afforded by a larger-scale technology, which can then be used in a natural, ready-to-hand fashion" (p. 114). Describing policy statements as infrastructures indicates that they function as large-scale technologies in Andrew Feenberg's sense of the word "technology"; that is to say, they are "an elaborate complex of related activities that crystallizes around tool-making and –using in every society" (Feenberg, 1999, p. 19; Ericsson, 2003b, p. 105). Moreover, by bestowing an imprimatur of legitimacy, they afford—or create conditions of possibility—for local composing practices within writing programs. What remains to be seen, in this dissertation, is to what extent policy statements specifically afford *digital* composing practices.

1.1 What (When) is Infrastructure?

Infrastructure is an uncommon word in Composition Studies. Because infrastructure is most often associated with built environments and information technologies, any use of the word outside of these contexts can appear novel or peculiar. However, a more expansive notion of infrastructure, first articulated by science and technology studies (STS) scholars Susan Leigh Star, Karen Ruhleder, and Geoffrey Bowker, has gradually begun to make its way into certain communities of practice within our field. In this dissertation, I argue that the notion of infrastructure, which has only very recently been addressed in writing program administration scholarship (Grabill, 2010; Pinkert, 2013), can helpfully inform the study of writing program policy statements and their relationship to digital and multimodal composing practices. Infrastructural emphasis on "invisible work" acknowledges that policy statements are, at their best, co-emergent with communities of practice, rather than existing as would-be autonomous, top-down, standardized entities.

Though previous scholars (Hughes, 1983, Jewett and Kling, 1991, Bowker, 1994) anticipated an expansive notion of infrastructure, Star and Ruhleder's "Steps Toward an Ecology of Infrastructure" (1996) offers a definitive re-evaluation of the term. Star and Ruhleder caution against misleading metaphors of infrastructure "as a substrate…something that is built and maintained, and which then sinks into an invisible background" (p. 112). In such metaphors, invisibility is infrastructure's most salient—and indeed preferable—feature; as soon as it provides a foundation for some other practice or actant, it can be readily forgotten. However, Star and Ruhleder reject the idea that infrastructure can be treated as a "thing stripped of use." Rather, they understand

infrastructure as “a fundamentally relational concept,” or as “something that emerges for people in practice, connected to activities and structures” (pp. 112-113). Infrastructure, seen in this light, is an ecology, “a kind of meta-complex system composed of interrelated and interdependent complex systems and their environmental structures and processes” (Syverson, 1999, p. 5). Infrastructure, as ecology, is a system of relations which encompasses other complex systems, such as people, practices, technologies, built structures, institutions, and the rules, norms, or policies accompanying any of these complex systems (among countless other participants).

Star and Ruhleder famously specify infrastructure’s relational properties below, suggesting simultaneously its wide reach and its local situatedness:

> [I]nfrastructure emerges with the following dimensions:
>
> • *Embeddedness*. Infrastructure is "sunk" into, inside of, other structures, social arrangements and technologies;
>
> • *Transparency*. Infrastructure is transparent to use, in the sense that it does not have to be reinvented each time or assembled for each task, but invisibly supports those tasks;
>
> • *Reach or scope*. This may be either spatial or temporal -- infrastructure has reach beyond a single event or one-site practice;
>
> • *Learned as part of membership*. The taken-for-grantedness of artifacts and organizational arrangements is a sine qua non of membership in a community of practice (Lave and Wenger, 1992; Star, in press). Strangers and outsiders encounter infrastructure as a target object to be learned

about. New participants acquire a naturalized familiarity with its objects as they become members;

• *Links with conventions of practice*. Infrastructure both shapes and is shaped by the conventions of a community of practice, e.g. the ways that cycles of day-night work are affected by and affect electrical power rates and needs. Generations of typists have learned the QWERTY keyboard; its limitations are inherited by the computer keyboard and thence by the design of today's computer furniture (Becker, 1982);

• *Embodiment of standards*. Modified by scope and often by conflicting conventions, infrastructure takes on transparency by plugging into other infrastructures and tools in a standardized fashion.

• *Built on an installed base*. Infrastructure does not grow de novo; it wrestles with the "inertia of the installed base" and inherits strengths and limitations from that base. Optical fibers run along old railroad lines; new systems are designed for backward-compatibility; and failing to account for these constraints may be fatal or distorting to new development processes (Monteiro, et al., 1994).

• *Becomes visible upon breakdown*. The normally invisible quality of working infrastructure becomes visible when it breaks: the server is down, the bridge washes out, there is a power blackout. Even when there are back up mechanisms or procedures, their existence further highlights the now-visible infrastructure. (Star and Ruhleder, p. 113).

In providing this description, Star and Ruhleder seek to expand the notion of infrastructure so that it can encompass more than disparate information technologies. Thus, alongside these dimensions, Star and Ruhleder also insist that the pertinent question is not "What is an infrastructure?" but "*When* is an infrastructure?" When they define infrastructure as "occur[ing] *when* the tension between the local and global is resolved" and "*when* local practices are afforded by a larger-scale technology, which can then be used in a natural, ready-to-hand fashion," they are indicating that infrastructure cannot be understood as a static, monolithic "thing," but as the emergent relationality among practices, structures, and technologies of varying scale and duration (p. 114, italics mine). Infrastructure can be adapted to incorporate certain technologies or practices and not others, or to privilege specific groups and exclude others. Infrastructures change as communities of practice change, and vice versa. In this way, infrastructure answers Star and other STS scholars' call for an "ecological analysis" of sociotechnical arrangements:

> …[By] *ecological* we mean refusing social/natural or social/technical dichotomies and inventing systematic and dialectical units of analysis. I think this reflects the dissatisfaction with conventional ways of approaching organizational scale and units of analysis (Star, 1995, p. 2).

The notion of infrastructure affords ecological analysis because it does not sharply distinguish human actors and non-human actors; it recognizes them as working together, in a material-discursive ensemble.

In their classic 1999 work *Sorting Things Out: Classification and its Consequences*, Geoffrey Bowker and Susan Leigh Star elaborate upon infrastructure's

refusal of social/technical dichotomies. This work investigates the ethical, ideological and political designs of ostensibly "natural" classifications and standards, and by corollary, the infrastructures communicating these classifications and standards. The linchpin of this investigation is a methodological move they call "infrastructural inversion" (originally coined in Bowker 1994), which involves "a struggle against the tendency of infrastructure to disappear…[by] recognizing the depths of interdependence of technical networks and standards, on the one hand, and the real work of politics and knowledge production on the other" (p. 34). Infrastructural inversion makes infrastructure visible by excavating the situated material-discursive practices by which it has been constituted and sustained. It thus bears a striking similarity to the actor-network dictum of "following the actors," with the exception that infrastructural inversion also seeks to trace what the actors have excluded (p. 48). Since "[m]ultiple voices and silences are represented in any scheme that attempts to sort out the world," infrastructural inversion calls for a process of "recovering multivocality"; it requires us to "disembed" the background work required to make the infrastructure transparent and responsive to the needs of (some) users (Bowker & Star, 1999, p. 41; Star & Strauss, 1999, p. 20). In this way, infrastructural inversion as a methodology is uniquely *genealogical*, working to challenge the easy narrative of a unitary origin and reveal the conflicts, collaborations, and silences underlying the adoption of sociotechnical arrangements (Foucault, 1984; Johnson, 2012).

This genealogical methodology lends itself to the study of technologies, institutions and policy structures in rhetoric and composition. The distinct advantage of infrastructural inversion—the way it traces material-discursive practices across micro and macro scales of analysis—can at first appear at odds with the qualitative research

approaches that rhetoric and composition has often employed. Indeed, the literature suggests that Composition Studies scholarship demonstrates a relatively limiting preference for micro-level research. As Jody Shipka has observed, contemporary writing process research, even as it has increasingly worked to attend to composers' situated sociocultural contexts, has also "overlooked the messy, multimodal, and highly distributed dimensions of writers' processes," resulting in a constricted view of composition's conditions of possibility (2011, p. 34). In order to address this issue, Shipka claims, "our frameworks [in composition research] must allow us to trace the multiple, and oftentimes overlapping, sites and spaces where composing occurs" (p. 36). Infrastructural inversion rises to this task; it acknowledges, through its integrative, multi-site approach, that those factors in composing which are often treated as invisible—"issues of policy, definition and ideology," especially "the presence and operations of standards and classifications, which lean heavily on all writing practices- and on new media practices in particular" (DeVoss, Cushman & Grabill 2014, p. 406)—must be traced concretely across multiple contexts, and not merely alluded to, in order to make sense of how composing happens (or does not happen). This emphasis on the invisible work that affords composing across contexts, then, makes the notion of infrastructure essential for understanding the relationship between writing policy statements and the composing practices prioritized in local writing programs.

1.2 Infrastructural Inversion, Policy Documents, and Digital Composing Practices

In this dissertation, I propose to use infrastructural inversion as a methodological framework with which to study national policy documents' effect upon digital composing

practices within writing programs and classrooms. Below, I outline the rationale for this approach and describe the research questions this approach is intended to answer.

First, infrastructural inversion can reveal the extent to which writing policy statements, as disciplinary infrastructures, cultivate an "ethics of ambiguity," and to what extent they disregard this ethics in favor of acting as "the self-proclaimed objective voice of purity" (Bowker & Star, 1999, p. 307, 313). In *Sorting Things Out*, Bowker and Star discuss the potential affordances and constraints of infrastructures. On the one hand, infrastructures can invisibly support boundary objects, or (conceptual/material) objects used by multiple communities of practice that are "plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites" (1999, p. 297; Star and Griesemer 2015). When they support a network of such objects, infrastructures operate as "boundary infrastructures," offering "sufficient play to allow for local variation together with sufficient consistent structure to allow for the full array of bureaucratic tools (forms, statistics, and so forth) to be applied" (p. 314). Boundary infrastructures recognize the "inherent ambiguity of things," such as when "an object refuses to be naturalized" or when "two communities of practice coexist in one person" (p. 304, 307). When infrastructures cultivate an ethics of ambiguity, they acknowledge multiplicity and marginality as necessary and valuable realities.

On the other hand, infrastructures can also ignore or reject these realities, tacitly affirming a vision of standardization as producing uniformity and consensus across communities of practice. Star has indicated that "[o]ver time, people (often administrators or regulatory agencies) try to control the tacking back-and-forth, and especially, to

standardize and make equivalent the ill-structured and well-structured aspects of [a] particular boundary object" (Star, 2010, p. 613). Such standardization, Star suggests, is inevitable and not inherently wrong (although, as we have already discussed, she recognizes standardization as dangerous, producing equally inevitable exclusions and silences). However, Bowker and Star warn that standardized objects across communities of practice do accrue "enormous power to the extent that a basis is formed for dissent to be viewed as madness or heresy" (1999, p. 312). Unfortunately, they also note that schools can be "lousy places to grow boundary objects because they both strip away the ambiguity of the objects of learning and impose or ignore membership categories (except artificial hierarchically assigned ones)" (pp. 305-306). This historical aversion to ambiguity means that academic or disciplinary infrastructures, in particular, need to be scrutinized for the degree to which they grow boundary objects or the degree to which they attempt to impose a standardization immune to deviation or dissent.

Indeed, there is already an evident suspicion that writing policy statements, as disciplinary infrastructures, currently move toward such a standardization. The responses toward the Outcomes Statement by new media scholars, addressed earlier, are one case in point. Indeed, Jeff Rice later expanded on his earlier reservations about Outcomes Statement 2.0 after the revision was officially released in 2008, arguing that the document's generality encourages a conservative, reductive, one-size-fits-all approach: "Generality is the basis of the rejection of the 'unusual,' and the legitimacy of the 'one best way' for standardized production" (2009, p. 12). Similarly, in discussing the 2004 "CCCC Position Statement on Teaching, Learning, and Assessing Writing in Digital

Environments," Alexander and Rhodes critique the document's generality and implicit standardization when it comes to addressing their digital outcomes:

> The lack of specificity leaves the door open to considering how the new "variety of digital compositions" can enhance the kinds of writing already occurring in composition courses. Under the heading "Assumptions," the authors state unequivocally that "as with all teaching and learning, the foundation for teaching writing digitally must be university, college, department, program, and course learning goals or outcomes" (CCCC, "Position"). The course and institutional goals for digital and new media are prioritized… The particularities of the modalities or media used are not addressed; the goal is the enhancement of learning—and we must assume that learning will follow the aim of compositionists and need not be attendant to either the particular histories of media or the particular rhetorical affordances of the media used (2014, p. 51).

In other words, Alexander and Rhodes, Rice, and Brooke, among others, express concern that the Outcomes Statement, the CCCC Position Statement and similar statements are formalizing the subordinate position that digital compositions frequently occupy, particularly in relation to compositionists' privileging of "the kinds of writing already occurring in composition courses," i.e., alphanumeric texts and essayistic genres. In expressing this concern, they echo their suspicion that writing program administrators may worry that Composition Studies's disciplinarity is being "threatened by genres that do not yet even have names." Given this suspicion, I propose a second rationale for the infrastructural inversion of rhetoric and composition policy documents—its potential for analyzing the relationship between infrastructure and disciplinarity.

Previous scholarship suggests that infrastructure and disciplinarity are closely related in rhetoric and composition. As Danielle DeVoss, Ellen Cushman and Jeffrey T. Grabill assert in their seminal article "Infrastructure and Composing, The *When* of New Media Composing" (2005), "[T]here is much more to an infrastructure than what is material or technological. Our list [of what constitutes infrastructure] includes standards and classifications—most powerfully what counts as writing…" (p. 410). The question of "what counts as writing" is one that expresses disciplinary values, suggesting that disciplinarity is communicated via infrastructure. Like infrastructure, a discipline is popularly seen as a kind of substrate or background for an academic collective's practices. In reality, however, disciplinarity is enacted by, co-emergent with, those very practices. As Paul Prior argues in *Writing / Disciplinarity* (1998), it is more productive to "reconceptualize disciplines and disciplinary enculturation as open and heterogeneous processes rather than closed and homogeneous structures" (p. 26). Thus, the question of an "ethics of ambiguity" pertains as much to Composition Studies' disciplinary practices as to its infrastructures. Writing policy statements, as a key infrastructure within Composition Studies, have the potential to communicate and sustain a disciplinary ethics of ambiguity. To discover whether they, in fact, do so is why infrastructural inversion is essential to this study.

1.3 Research Questions

Accordingly, this study seeks to address the following questions:

1) Do writing policy statements, as disciplinary and cross-programmatic infrastructures, afford emerging digital and multimodal genres? If so, how?

2) What is the relationship between infrastructure and disciplinarity in Composition Studies?
3) How can disciplinary and programmatic infrastructures in Composition Studies cultivate an ethics of ambiguity, particularly concerning emerging digital and multimodal genres?

1.4 Chapter Overview

Chapter Two, Infrastructures, Institutions and Ecologies: Why Policy is Invisible in Rhetoric and Composition, reviews the Composition Studies literature regarding writing program infrastructures, as well as related conceptions of institutions and ecologies. Taking into account the relative scarcity of rhetoric and composition scholarship into policy infrastructure, I argue that the methodological problem of scale may pose an initial stumbling block. The advantage of infrastructural inversion—the way it straddles both the macro and micro scale—can appear incompatible with conventional qualitative research approaches. Indeed, the literature suggests that Composition Studies scholarship demonstrates a preference for micro-level research, on the scale of particular pedagogical or programmatic innovations.

Chapter Three**,** Infrastructural Inversion and Sensemaking: A Comparative Analysis of Institutional Methodologies, directly addresses this problem of scale by engaging in a comparative analysis of the organizational studies theory of sensemaking (standing in for micro-level research methodologies) and infrastructural inversion (as an integrative research approach spanning the micro and the macro). Although sensemaking theories, largely popularized by the management scholar Karl Weick, do not often see

direct application in composition research, they bear promising similarities with ethnomethodological approaches and pedagogies of reflection-in-action in Composition Studies scholarship. By applying sensemaking theory to local and cross-programmatic frameworks for multimodal assessment, I demonstrate its similarities to infrastructural inversion, particularly in its privileging of multivocality, but I also indicate that an infrastructural approach has unique advantages for researching macro-level institutions alongside the local, such as identifying master narratives and exposing invisible work.

Chapter Four**,** Disciplining the Digital: A Case Study of the Outcomes Statement 3.0, presents the case study of a particular policy infrastructure, the 2014 revision of the Council of Writing Program Administrators Outcomes Statement for First-Year Composition (OS 3.0). I demonstrate that, by combining document analysis with semi-structured interviews of participants (in this case, interviews of members of the 2014 Outcomes Statement Revision Task Force), rhetoric and composition scholars can gain an understanding of the "multiple voices and silences" underlying their field's policy statements. Task force interviews were designed with the intention of highlighting certain key terms and concepts explicit in OS 3.0 or its accompanying texts and tracing the "multiple voices" concealed in their inclusions and interpretations, as well as the "conspicuous absences" of other terms or concepts. In this way, the interpretations surrounding certain key terms in the revised OS (such as composing, technology, genre, and disciplinarity) illuminated the infrastructural uses to which these terms were being put.

Chapter Five, Implications and Directions, discusses case study findings and argues that these findings demonstrate how successful infrastructures can afford

multimodal and digital genres across writing programs. It also explores the implications for future policy infrastructures, curricular interventions, and programmatic professional development, as well as directions for future research.

CHAPTER TWO: INFRASTRUCTURES, INSTITUTIONS AND ECOLOGIES: WHY POLICY IS INVISIBLE IN RHETORIC AND COMPOSITION

In this chapter, I will review direct investigations of infrastructure, as well as related conceptions of institutions and ecologies, in Composition Studies. I will then account for the relative scarcity of infrastructure in rhetoric and composition scholarship, pointing to methodological difficulties as one likely key cause. In discussing these issues, I hope to accomplish a number of initial goals for this project: 1) Demonstrate that the notion of infrastructure, despite its scarcity in rhetoric and composition scholarship, bears directly on the field's current interest in institutional ecologies and their significance for understanding composing practices. 2) Explain writing policy statements' relative invisibility in rhetoric and composition scholarship. 3) Illuminate how the problem of "scale" poses a challenge to studying writing policy statements as infrastructures. Chapter Three will discuss the problem of scale in more detail and detail how infrastructural inversion, as a methodology, successfully resolves this problem.

2.2 Infrastructure in Composition Studies: Ecologies and Institutions

Infrastructure's use in composition scholarship has been relatively rare, as Pinkert (2013) has previously noted. One of the first examples is Danielle DeVoss, Ellen Cushman, and Jeffrey T. Grabill's seminal 2005 piece, "Infrastructure and Composing: The *When* of New-Media Writing." DeVoss, Cushman and Grabill discuss

infrastructure's usefulness for understanding digital composing practices, arguing that "writing programs will never adequately come to terms with how to understand and teach new-media composing unless we can come to a productive and activist understanding of infrastructure" (2014, p. 411). In defining infrastructure, they directly cite Star and Ruhleder's "dimensions" of infrastructure and their focus on *when*, not what, an infrastructure is (pp. 409-411)**.** Significantly, even as they discuss composing with new media and technologies, they also follow Bowker and Star in asserting that "there is much more to an infrastructure than what is material or technological. Our list [of what constitutes infrastructure] includes standards and classifications—most powerfully what counts as writing…Infrastructure also entails decision-making processes and the values and power relationships enacted by those processes" (p. 410). Thus, for example, Ellen Cushman's multimedia writing course at Michigan State University had to contend with a technological policy infrastructure designed for limited alphanumeric composing on computers and one which accordingly determined software standards regarding "permissions to save on networks, file management and architecture, and file size and compression" (p. 421).

While DeVoss, Cushman and Grabill's article has proved influential in rhetoric and composition (garnering 111 scholarly citations in a recent Google search), scholarly pieces exhibiting infrastructure as their key theoretical framework remain relatively few in number (Salvo, Ren, Brizee & Conard-Salvo, 2009; Grabill, 2010; Johnson, 2012; Pinkert, 2013; Dunn, Jr., Luke & Nassar, 2013; Purdy & DeVoss, 2015). Each of these pieces specifically uses Susan Leigh Star's notion of infrastructure and/or infrastructural inversion, whether to examine new media and information technologies (Salvo et al.,

2009; Johnson, 2012; Dunn et al., 2013), institutional space (Purdy & DeVoss, 2015), or writing program administration (Grabill, 2010; Pinkert, 2013). Grabill and Pinkert's scholarship theorizing writing programs as infrastructures is particularly promising for demonstrating infrastructure's conceptual reach, relatively far outside its accustomed uses (e.g. electronic technologies, material structures, etc.).

Though infrastructure as a term or concept has not yet gained widespread traction in Composition Studies, it is of a piece with the field's recognition that individual composers and their composing practices (multimodal or otherwise) cannot be understood in isolation from specific ecologies and institutional arrangements. The conception of writing, composing, rhetoric, and writing program administration as ecological processes has gained much prominence in recent scholarship (Cooper, 1986; Phelps, 1988; Syverson, 1999; Weisser & Dobrin, 2001; Edbauer Rice, 2005; Hawk, 2007; Rickert, 2013; Reiff, Bawarshi, Bailiff &Weisser, 2015). Along similar lines, the introduction of institutional critique into Composition Studies has explored the idea of institutions as ecologies. Institutional critique, a rhetorical methodology developed by James Porter, Patricia Sullivan, Stuart Blythe, Jeffrey Grabill and Libby Miles (2000), understands "institutions as rhetorical systems of decision making that exercise power through the design of space (both material and discursive)" (p. 621). Noting the limitations of critiques that focus solely on either classroom pedagogy or abstract conceptions of institutions, institutional critique uses spatial analysis (informed by postmodern geography) to identify "nodal points" linking micro and macro institutions (p. 621). These points constitute "gaps or fissures, places where resistance and change are

possible," ambiguities that afford institutional agents' rhetorical praxis and invite transformation of institutions' material-discursive spaces (p 631).

Following up on this work, Stuart Blythe (2007) draws a connection between Bonnie Nardi and Vickie O'Day's idea of organizations as "information ecologies" and Porter et al's notion of micro-institutions. According to Blythe, "Just as an ecological view of the environment prompts us to see the environment as a set of interrelated systems…so does an ecological view of organizations prompt us to see a given local institution as a series of interrelated systems" (p. 174). Intriguingly, Blythe sees "mundane texts" as a key system within institutional ecologies. He points out that "[o]ne way for institutional agents to affect change is to focus on written documents—either how they are written or how they are interpreted…because so much of an institution and its maintenance involves reading and writing" (p. 181). Mundane texts, then, can function as one of institutional critique's "nodal points" linking micro and macro institutions. Porter et al suggest as much when they identify policy writing as a potentially little-noticed discursive gap that can have substantial institutional consequences (p. 631).

What these ecological and institutional-critical approaches have added to composition scholarship, and what they share with the idea of infrastructure, is that they reinforce and emphasize the understanding that composing doesn't just "happen" in classrooms and writing programs, as if by magic. Rather, composing practices participate in institutional ecologies, which are, themselves, part of wider (national and global) infrastructural ecologies. Each part of these ecologies—whether they are learning communities, programs, departments, university administrations, national professional bodies, or governments—is inextricably linked to every other part. Similarly, as Grabill

(2010) has noted, an infrastructure is "a variable assemblage of people, technologies, missions, purposes, and other material and discursive things that is configurable," and it cannot perform without the "distributed work" of its members (p. 15, 24). At the same time, these different approaches also share an awareness that local variations in practice can have significant effects on institutional ecologies and infrastructures. Institutional critique demonstrates the pivotal role of local material and discursive spaces in facilitating institutional maintenance and change; infrastructural analysis, too, starts from the premise that, "because it means different things locally, [infrastructure] is never changed from above" but piecemeal, based on "adjustment with other aspects of the systems involved" (Bowker and Star 1999, p. 35).

What infrastructural analysis uniquely brings to the conversation, on the other hand, is its attention to genealogy. Again, infrastructural inversion's effort to reveal the multivocality of the past, the "when" of an infrastructure, is key. According to Foucault (1984), genealogy "must record the singularity of events outside of any monotonous finality; it must seek them in the most unpromising places, in what we tend to feel is without history…" (p. 76). Just as institutional critique investigates "zones of ambiguity" (Sibley 1995, Porter et al 2000) that belie the boundary stability of institutional space, infrastructural inversion interrogates the ambiguities inherent in the construction of institutional, technological, and infrastructural histories.[3] Johnson (2012) notes that "[by] conducting detailed historical investigations into the construction of infrastructure,

[3] This is not to say that institutional critique neglects time as an element of its analysis. Space and time are treated as inseparable in institutional critique, as when Porter et al (2000) argue that "*timely* deployment and construction of space (whether it be discursive or physical) can be a key rhetorical action affecting institutional change" (p. 630, italics mine). I suspect that any difference between institutional critique and infrastructural inversion is one of emphasis, not of kind.

scholars can gain an understanding of the situated rhetorics that become embodied technologies" (p. 2). This understanding of situated rhetorics is key to infrastructural genealogy, since the "standard narratives" that tell the history of an infrastructure often conceal "multiple voices and silences"—the inclusion or exclusion of "many possible kinds of interpretations of categories, texts, and artifacts" that mark an infrastructure's development (Bowker and Star 1999, p. 41). In addition, the genealogical method of infrastructural inversion avoids the temptation of "master narratives" to "[create] global actors, or [turn] a diverse set of activities and interests into one actor with a presumably monolithic agenda" (Star 1999, p. 481). Instead, it acknowledges that an infrastructure offers the potential for divergent and conflicting stories of "chains of agencies that 'get things done'" (Grabill 2010, p. 20). In place of "monotonous finality," infrastructure reveals a heterogeneous indeterminacy.

2.2 Studying the Invisible Infrastructure of National Policy Documents

National policy documents in writing program administration are, at present, little-explored terrain for infrastructural analysis. A number of rhetoric and composition scholars have hinted at infrastructural inversion's potential in this regard. DeVoss, Cushman and Grabill indicate that institutional infrastructures express "visible and at times invisible statements about what types of work are possible and valuable (encoded, often, in curricula, assessment guidelines, standards, and policies)" (p. 406). Along these same lines, practitioners of institutional critique have foregrounded the significance of policy documents, asserting that "mundane texts" have considerable power to afford institutional agency and that policies are a key site for unearthing "gaps" that can be "deployed to promote change" (Blythe 2007, p. 181; Porter et al 2000, p. 631). In spite of

this acknowledgement that policy plays a central role in infrastructure, it appears that no CWPA or other cross-programmatic composition policy documents—whether the 1998 "Evaluating the Intellectual Work of Writing Program Administration," the 2011 "Framework for Success in Postsecondary Writing," or the 2000 "Outcomes Statement for First-Year Composition"—have been studied as infrastructures.[4]

There may be several reasons for this neglect thus far. The first might be that, as I suggested in the last chapter, Composition Studies scholars largely continue to think of infrastructures, if they think of them at all, as background "things" like power lines, sewers, computer networks, and so on. Inadvertently maintaining a longstanding ontological firewall between the material and the discursive, compositionists may treat policies simply as words—words that can have material effects, to be sure, but that could not in themselves constitute infrastructures. Of course, as Star and Ruhleder asserted, infrastructure is a relational concept, not a name for specific technologies. As an ecology, infrastructure includes several material-discursive ensembles that work in tandem. A policy document is just such a material-discursive ensemble, emerging from and relating in various ways to writing programs, textbooks, previous policy documents, teachers, administrators, students, computers, websites, hands, trees, electricity, etc.

Another reason, however, might not be as readily answerable. If, as an ecology, an infrastructure is inclusive, it can also appear massive, amorphous, even invisible. Indeed, a cross-programmatic policy document can suggest just such an amorphous entity

[4] The rhetoric of these policy documents, *qua* policy, has certainly been studied in some detail. Patricia Ericsson's dissertation on the *polikairos* (or political kairos) of the CWPA Outcomes Statement is an eloquent case in point (2003a). In addition, Ericsson's analysis of the Outcomes Statement as a "technology," in Andrew Feenberg's sense of the word, bears a striking resemblance to the STS notion of infrastructure (2003b).

for the composition researcher, as if its reality were both everywhere and nowhere: adopted across various universities and colleges, justified and debated in countless faculty meetings and classrooms, but having only a spectral relation to these local situations, a little like Bruno Latour's tongue-in-cheek road signs in *Reassembling the Social*, pointing the way to "Context, 15 Km, Next Stop" (2005, p. 167). Simply put, the proper scale on which to study a policy infrastructure is frustratingly difficult to ascertain, and limiting its effects to a conventional unit of analysis—such as a writing program, a writing center, a university, and so on—can shape the infrastructure into a manageable size. Nonetheless, wherever one engages in this kind of conventional analysis, the story of the blind sages and the elephant comes to mind: where, exactly, is the infrastructure? What accounts for its material-discursive (that is to say, rhetorical) efficacy across vast distances?

When it comes to "scaling" infrastructure, rhetoric and composition scholarship has by and large opted to focus on the level of the classroom or the writing program. Thus, for example, when studying the policy effect of the CWPA Outcomes Statement, a significant plurality (if not majority) of scholarly pieces focus on the Outcomes Statement's influence upon the authors' resident writing programs and their institutional practices (Harrington et al., 2005; Behm et al., 2013). Again, this micro-level focus has decided benefits: it keeps analysis from operating at a level of abstraction removed from the situated realities of infrastructural practices. On the other hand, as Porter et al. (2000) note, this micro-level focus can also have the unfortunate side effect of sidelining or obscuring macro actors:

> [The] understanding of institutions in pedagogical moments smacks of travelogue description. The institution is the geographical and historical coordinate at which the moment takes place. Thus, institutions are either a Big Brother or a backdrop for some travel snapshots, but in either case they are de-emphasized in the consideration of the main event, i.e., the classroom (p. 617).

Institutions (and, by extension, cross-institutional infrastructures) get analytically short-changed in research that can, at worst, effectively amount to promotional pieces for local pedagogical and programmatic innovations. By simply minimizing the global impacts of infrastructures in favor of a single-site discussion, the problem of scale is sidestepped, and the fuller potential influence of policy statements remains largely invisible.

In an effort to demonstrate how infrastructural inversion addresses this problem of scale, the next chapter engages in a comparative analysis of the organizational studies theory of sensemaking and infrastructural inversion. Sensemaking, a research approach grounded in the interpretive practices of local actors, bears striking similarities to the micro-level focus of much rhetoric and composition scholarship. Thus, although sensemaking is rarely directly cited in composition research, it is a useful lens through which to examine the advantages, but also notable shortcomings, of rhetoric and composition's doggedly local research methodologies. In other words, sensemaking shares a central weakness of much composition research: a difficulty with bridging a perceived gap between micro-level and macro-level actors. Comparing sensemaking approaches with infrastructural inversion helps to better highlight infrastructural inversion's ability to integrate local and global scales of analysis. Such comparative analysis provides a compelling rationale for infrastructural inversion's efficacy in

examining the cross-programmatic effects of policy statements upon digital and multimodal composing practices.

CHAPTER THREE: INFRASTRUCTURAL INVERSION AND SENSEMAKING: A COMPARATIVE ANALYSIS OF INSTITUTIONAL METHODOLOGIES

Any effort at infrastructural analysis must struggle with the problem of scale. After all, infrastructures are vast in scope, and empirical researchers have limited intellectual, material and economic resources, archival access, geographic mobility, and lifespan to encompass such scope. Star aptly describes the problem in "The Ethnography of Infrastructure" (1999):

> All of us doing this work have begun to wrestle with questions of scalability that inherently touch on questions of infrastructure…Groups are distributed temporally and geographically…The labor-intensive and analysis-craft of qualitative research, combined with a historical emphasis on single investigator studies, has never lent itself to ethnography of thousands (p. 479).

Indeed, infrastructure can involve thousands, if not millions, of participants. As a relational concept, infrastructure resembles Latour's notion of actor-networks in its quality of irreduction: the further along a researcher traces it, the more she discovers that infrastructure is relations all the way down, with no necessary beginning nor end (or it would be if the researcher did not, for the sake of sanity, stop somewhere). Of course, all research, to some degree, invites this question of scale—decisions about populations, units of analysis, etc. However, the large-scale technologies of infrastructures, whether

they be Internet protocols and regulations, food safety standards, or the apparatus of climate science studies, may span the entire globe, both conceptually and literally. This being the case, determining the research parameters of infrastructural analysis is daunting (to put it mildly) in any field. In rhetoric and composition, especially, the call to trace the "dynamic, emergent, distributed, historical, and technologically mediated dimensions of composing practices" across contexts can leave the researcher struggling to identify the appropriate sites and units of analysis for composition research (Shipka, 2011, p. 36).

One response to this problem is to privilege the local in the analysis; several institutional analyses in Composition Studies, thus far, have tended in this direction, focusing their attention on the micro-interactions and particular innovations of individual classrooms, centers and programs. To be sure, this is a valuable approach, infinitely preferable to "global critiques" that in fact limit themselves to "ideal cases" and abstractions (Porter et al 2000, p. 615). But the difficulty with this tendency to privilege the local is that it can leave macro-institutions—that is, the web of relations beyond a single site—vaguely defined. In an effort to make concrete and vivid the work close at hand, it can leave all else surrounding, everything a little farther away, abstract and shadowy. Latour discusses this paradox of context in *Reassembling the Social*:

> Every social scientist knows quite well that local interactions are not a good place to rest. When, for one reason or another, you happen to come on the stage, you become quickly aware that most of the ingredients composing the scene have not been brought there by you and that many have been improvised on the spot by the other participants…So when inquirers begin to look away from local sites because obviously the key of the interactions is not to be found there—which is true

> enough—they believe they have to turn their attention toward the 'framework' inside of which interactions are supposed to be nested—and here things go terribly wrong…they end up, to borrow from Samuel Butler's famous title, in Erewhon (2005, p. 165-167).

Latour vividly portrays the "tension between the global and the local" described by Star and Ruhleder (1996, p. 114). On the one hand, local interactions point the researcher to other sites, communities and practices to contextualize what they see; on the other hand, moving toward this global context can easily tempt the researcher into abstraction with no grounding in sites, communities or practices at all. Faced with this paradox, infrastructural inversion must attempt a simultaneous investigation of local communities of practice and their context, without ontologically privileging either "pole" or offering a "lukewarm" middle path between the two (Latour 2005, p. 169).

In order to better understand how an infrastructural approach can resolve the tension between the local and the global, particularly when illuminating the affordance of digital composing practices by national policy statements, a comparative analysis using the notion of sensemaking may be useful. While sensemaking is a concept most familiar to the field of organization studies, it bears significantly upon Composition Studies' frequent micro-level focus. According to Karl Weick, management scholar and author of the seminal *Sensemaking in Organizations*, sensemaking quite literally means what it says: it is the process by which individuals and groups "make sense" of the situations around them. Analyses of sensemaking usually begin with the experience of individual sensemakers, since sensemaking shares with ethnomethodology a commitment to

studying interpretation, action and communication at the scale of local practices (Weick 1995, p. 13). Similarly, Deborah Brandt and M. Jimmie Killingsworth have both observed the influence of ethnomethodology, and its emphasis upon situated micro-actions, upon such Composition Studies landmarks as cognitive writing process theory and the concept of academic discourse communities, respectively (Brandt 1992; Killingsworth 1996, p. 194). For the purposes of this chapter, sensemaking theory will serve as a "stand-in" for research approaches that privilege micro-scale analysis.

Sensemaking theories have a rather conflicted relationship with the study of macro-scale institutions. On the one hand, scholars of sensemaking are also interested in how local sensemaking practices scale up into organizational practices. Sensemaking is enactive, which is to say that, through the articulation of sensemaking practices, "[s]ituations, organizations, and environments are talked into existence" (Weick et al., 2005, p. 409; Weick, 1995, p. 30). Given this enactive quality, sensemaking can offer a good deal to studies of institutional ecologies; as Weick points out, "sensemaking is the feedstock of institutionalization" (Weick, 1995, p. 36). On the other hand, however, a tension between local sensemaking and institutionalization persists in sensemaking scholarship. Although such scholarship acknowledges that sensemaking practices scale up, the means by which these practices makes the "leap" to institutionalization is not always clear. As Weick et al (2005) and Weber and Glynn (2006) acknowledge, a gap is implicitly presupposed between micro- and macro-levels of analysis in sensemaking studies. In this sense, an infrastructural framework has a distinct advantage in theorizing the relationship of local practices and the large-scale technologies which afford these practices; in other words, it integrates both micro- and macro-levels of analysis. A

comparative analysis of the application of both sensemaking and infrastructural approaches to multimodal assessment will underscore their similarities as well as infrastructure's distinct integrative advantage.

3.1 Sensemaking: A Brief Introduction

Before engaging in this comparative analysis, a more sustained explication of sensemaking theory and research is necessary. Sensemaking theories draw inspiration from pragmatic, phenomenological, symbolic interactionist, and ethnomethodological traditions; in the spirit of these traditions (particularly the experiential philosophy of William James), these theories understand sensemaking as the confrontation of "ongoing, unknowable, streaming of experience" and the pursuit of provisional "answers to the question 'what's the story?'" (Weick et al., 2005, p. 410; Weick, 1995, pp. 24-26). People engage in sensemaking not purely for its own sake, but in order to guide action and articulate meaning to others involved in action: "Sensemaking is central [in guiding human behavior] because it is the primary site where meanings materialize that inform and constrain identity and action" (Weick et al., 2005, p. 409). Because of this focus on the relationship between meaning and action, sensemaking begins in the middle of things; it does not presume a stable, unchanging world where everything is always running smoothly, but a dynamic world marked by disruption and flux.

Accordingly, Weick and others sensemaking scholars stress that sensemaking finds its "genesis" in the experience of "disruptive ambiguity" (Weick et al., 2005, p. 413). For example, in the steady and sustained work of organizations, an "event" not previously encountered before temporarily halts action. As a result, a felt need emerges to

make sense of the event using available frameworks, or, failing that, to construct new frameworks:

> Explicit efforts at sensemaking tend to occur when the current state of the world is perceived to be different from the expected state of the world, or when there is no obvious way to engage the world. In such circumstances there is a shift from the experience of immersion in projects to a sense that the flow of action has become unintelligible in some way. To make sense of the disruption, people look first for reasons that will enable them to resume the interrupted activity and stay in action. These 'reasons' are pulled from frameworks such as institutional constraints, organizational premises, plans, expectations, acceptable justifications, and traditions inherited from predecessors. If resumption of the project is problematic, sensemaking is biased either toward identifying substitute action or toward further deliberation (Weick et al., 2005, p. 409).

The need for frameworks to make sense of disruption cannot be emphasized enough. As Weick notes, we perpetually use frameworks to make sense of the ongoing stream of experience we encounter: "sensemaking involves placing stimuli into some kind of framework…when people put stimuli into frameworks, this enables them to 'comprehend, understand, explain, attribute, extrapolate and predict'" (Weick, 1995, p. 4; Starbuck and Milliken, 1988, p. 41). However, the close relationship between sensemaking and frameworks becomes especially "visible when predictions break down" (Weick 1995, p. 5). Since the former predictions or frameworks are no longer entirely reliable, practitioners must improvise, "simultaneously interpret[ing] their knowledge

with trusted frameworks, yet mistrust[ing] those very same frameworks by testing new frameworks and new interpretations" (Weick et al., 2005, p. 412).

The testing of new frameworks and new interpretations is accomplished through the sensemaking practices of noticing and bracketing, labeling, and retrospection. Magala (1997) observes that, when confronted with ambiguous data, professionals make note of the data in passing and bracket it for later attention and analysis, "inventing a new meaning (interpretation) for something that has already occurred during the organizing process, *but does not yet have a name*, has never been recognized as a separate autonomous process, object, event" (p. 324). Weick et al (2005), building on this observation, assert that the inventive process begun with noticing and bracketing ambiguities develops via retrospective interpretation and labeling. Retrospective labeling provisionally translates initial ambiguities into "cues" for "plausible" coordinated action: "Thus, the ways in which events are first envisioned immediately begins the work of organizing because events are bracketed and labeled in ways that predispose people to find common ground" (p. 411). In other words, while sensemaking might begin with individual actors envisioning events in different ways, subsequent labeling allows for increasingly widespread and cooperative (if not consensual) communication, action and organization. In this sense, individual and group sensemaking "scales up" into the articulation of provisional categories across disciplinary and professional networks. This understanding of the relationship between interpretation and action lends itself to discussing assessment work.

3.2 Assessment as Sensemaking: More Than Evaluation

Understanding writing assessment and outcomes design as sensemaking underscores the vital roles of interpretation, action, and communication to assessment work. As Scott and Brannon point out, “Assessments codify particular value systems. Conceptions fundamental to writing pedagogy…are also fundamental to writing assessments” (2013, p. 277). By means of assessment, disciplinary practitioners interpret the student work they receive; they act (respond and evaluate); they articulate inherited and emergent disciplinary values through the communication and institutionalization of assessment rubrics, regimes and frameworks. In the case of Composition Studies, writing assessments articulate (differing but nonetheless collaborative) values about what constitutes (good) writing.

When describing assessment as sensemaking, we must be careful not to equate assessment with evaluation, since evaluation reduces context. Weick et al (2005) caution that “[s]ensemaking is about the interplay of action and interpretation rather than the influence of evaluation on choice” (p. 409). The emphasis of evaluation is on choice, specifically, on the rightness or wrongness of a given choice made by an individual decision maker. As Snook (2001) points out in his interpretation of a 1994 friendly fire incident in Iraq, asking the evaluative question “‘Why did they decide to shoot?’ quickly becomes ‘Why did they make the *wrong* decision?’” (p. 206). The role of context disappears in the evaluator's zero-sum judgment; rightness and wrongness are “givens” attributed solely to the individual decision maker. Along these lines, Paul Prior (1998) points out that writing assessment is sometimes reduced to a “textualized version of the Initiation-Reply-Evaluation structure of classroom discourse”: “[s]tudent texts are seen as

crystallizations of students' intelligence, knowledge, skills, attitudes and effort, magic mirrors teachers gaze into to discover who is the most literate on the roster" (p. 142). This evaluative reduction asks only one thing of a student's composition: "Did they make the right writing moves or the wrong writing moves?" While this question can sometimes play a useful role in writing assessment, understanding assessment as the "interplay of action and interpretation" suggests a richer, more complex engagement with students' composing processes and products.

Assessment as sensemaking entails the priority of meaning (both its creation and its discovery) over evaluation. Assessment requires interpretation of students' texts that, moving beyond evaluation's a-contextual judgment of "right" or "wrong", affords a greater latitude for student agency—acknowledging that "students might represent the teacher's task one way but carry it out another way" (Prior, 1998, p. 250). In order to provide such latitude, assessment categories are necessarily flexible and provisional, responding to the unique contributions afforded by students' compositions. Accordingly, assessment requires the assessor to actively construct a framework for meaning. A framework for meaning "shifts the emphasis away from individual decision makers toward a point 'out there' where context and individual action overlap…" (Snook 2001, p. 206). As Weick (1995) explains, sensemaking includes interpretation, but is not synonymous with it: "Most descriptions of interpretation focus on some kind of text. What sensemaking does is address how the text is constructed as well as how it is read. Sensemaking is about authoring as well as reading" (p. 7). Thus, assessment allows greater attention to the contextual processes informing the construction of the assessed

text, and by extension, the opportunity to generate new assessment values attuned to these contexts.

Understanding assessment as sensemaking has particular relevance for multimodal assessment. Anne Wierszewski (2013) notes that the rhetorical dexterity afforded by multimodal compositions privileges an interpretive, rather than narrowly evaluative, response:

> As Takayoshi cautioned, we should take care to avoid emphasizing through our responses that there is a "right" and a "wrong" way to arrange a multimodal text. Instead, we should take care to do as Wysocki (2004) has implored us: As we respond, "generosity too must enter, so that we approach different-looking texts with the assumption no that mistakes were made but that choices were made and are being tried out and on" (p. 23). A focus on the rights and wrongs of form cannot account for the kinds of choice, creativity, and experimentation demanded by multimodal pedagogical models.

Wysocki's "generous reading" of multimodal texts emphasizes "how any text—like its composers and readers—doesn't function independently of how it is made and in what contexts," and foregrounds these questions of construction and context in the process of interpretation (2004, p. 15). However, as Jody Shipka warns us, the danger of Wysocki's notion of generous reading is that it assumes an interpretation done in leisure (2011, p. 113). In reality, writing assessment must meet the demands of "a million things that go on" (Weick et al., 2005, p. 411), including student expectations for prompt feedback and grading, the expectations of other interested stakeholders, institutional and programmatic

goals, means and outcomes statements, the pressure of publishing one's own academic work, and so on. In other words, multimodal assessment, like all assessment, must swiftly and imperfectly aim to organize the "flux" of an "ongoing stream of experience." It must rely on established and emerging assessment frameworks to make sense of multimodal composition's "disruptive ambiguity."

3.3 Multimodal Assessment's Sensemaking in Action: Developing New Frameworks

As discussed earlier, multimodal composition has greatly troubled the use of print-centered frameworks to understand writing; as a result, many composition instructors engaged in multimodal assessment report struggling with the absence of immediately suitable models and frameworks with which to make sense of the work being assessed. Emily Wierszewski's 2013 study "'Something Old, Something New': Evaluative Criteria in Teacher Reponses to Student Multimodal Texts" is instructive in revealing how the sensemaking of multimodal assessment relies upon trusted print-based frameworks, yet also begins to develop new assessment frameworks. It also suggests the role of disciplinary and professional networks in acting upon and articulating these new frameworks.

In the 2013 study, Wierszewski sought to discover "what print values do teachers use when they assess student multimodal works, and what kinds of criteria seem to be unique to new, multimodal pedagogies." In pursuing this question, Wierszewski was building on the prior claims of multimodal composition scholars that "teachers must take into account that multimodality is different from print in profound ways and transform what they know about rhetorical effectiveness" (Wierszewski; see also Takayoshi, Hawisher and Moran, and Zoetewey and Staggers). Wierszewski asked eight composition

instructors to respond to their own students' multimodal texts in sixty-minute verbal protocols. She then compared their evaluative responses to Connors and Lunsford's 1993 "taxonomy of teachers' written responses on print essays," pointing out that "such a comparison was necessary to identify and analyze teachers' new or repurposed values—values that did not fit anywhere on Connors and Lunsford's [print-based] spectrum."

Intriguingly, in responding to their students' texts, instructors engaged in sensemaking practices very similar to the ones described in Weick et al (2005). Instructors indeed interpreted texts using trusted (print-based) frameworks. Wierszewski noted that "the top four most frequent evaluative comment types in this study—*formal arrangement, overall, organization,* and *audience*—all overlapped with categories found in Connors and Lunsford's data set." Composition instructors thus relied on familiar rhetorical categories, such as organization, arrangement, audience, and (less frequently) purpose and sentence structure, in order to evaluate the texts.

Where these familiar categories fell short, however, the instructors adopted strategies of *noticing, bracketing* and *labeling* anything different or unique about the multimodal texts. Wierszewski found that "half of the time teachers were not engaged in evaluation but were explaining what they were doing or making sense of the student's text as a reader." This finding corresponds to our presentation of assessment as the priority of meaning over evaluation; instructors were responding to features they noticed, as opposed to directly evaluating these features, in order to temporarily bracket these features and return to them for more contextual interpretation. Indeed, Wierszewski even speculates that one of the most frequent evaluative comment types also found in Connors and Lunsford—"overall" comments about students' general performance—"may suggest

teachers' uncertainty about how to *name* the things that they find effective or less effective in student multimodal work" (italics mine). Here, too, instructors appeared to be relying on improvisational interpretation of multimodal elements that did "not yet have a name" in multimodal assessment.

When the instructors did make more specific evaluative statements about the unique multimodal elements within their students' texts, they engaged in a *labeling* and *categorizing* of these elements that proved strikingly different from Connors and Lunsford's print-based categories. For instance, Wierszewski identified one key multimodal comment type as "creativity," with several comments focusing on "the use of creative or inventive approaches to the assignment, including remarks about choice, originality, and thoughtfulness." Another unique category, "multimodality," addressed "the relationship between the modalities in a text." Thus, for example, one instructor commented how a student's use of music "enters into conversation with the video shots." Each of these categories, creativity and multimodality, remains fairly general and inclusive. However, as Weick points out, that is to the advantage of the sensemaking process: "[c]ategories have plasticity because they are socially defined, [and] because they have to be adapted to local circumstances…" (Weick et al. 2005, p. 411). In other words, in categorizing the features of their students' texts, instructors were attempting to address the local contexts of the specific works, but they were also looking ahead to a "functional deployment" of these categories. The categories were thus being constructed, implicitly, with the work of disciplinary organizing—"coordinating" with colleagues and "distributing" workable categories to others—in mind (411).

What Wierszewski's study suggests, then, is that new assessment frameworks are developed retrospectively from action and presumption. Since the ongoing flux of experience perpetually calls out for action, "[an] action can become an object of attention only after it has occurred" (Weick, 1995, p. 126). In the present moment of action, teachers must test "hunches" that only later, through retrospective interpretation and articulation, become labeled and organized through communication. These hunches, as Weick indicates, start with "immediate actions, local context, and concrete cues" (Weick et al., 2005, p. 412). Similarly, the instructors of Wierszewski's study began not by directly evaluating students' multimodal texts, but by responding to the "concrete cues" they noticed in the texts, then using these observations to build a makeshift evaluative framework. Wierszewski speculates, at the end of her study, that teachers may "recognize the importance of multimodal relationships in a text but do not fully understand how to talk about whether or not those relationships are successful or meaningful." Retrospective sensemaking helps to clarify and articulate the values only guessed at earlier:

> [R]etrospective sensemaking is an activity in which many possible meanings may need to be synthesized…[people] need values, priority and clarity to help them be clear about which projects matter. Clarity on values clarifies what is important in elapsed experience, which finally gives some sense of what that elapsed experience means (Weick, 1995, p. 27-28).

Indeed, Wierszewski herself contributes to this retrospective sensemaking. Through her coding and analysis of instructors' responses, she refines the makeshift categories the instructors have used and, in asserting that "teachers are actively developing concepts and criteria foreign to print essays as they respond to multimodal texts," *articulates* these

categories as assessment values requiring "future research or other scholarship." Wierszewski's contribution indicates that the retrospective sensemaking of individual instructors engaged in assessment does not, in and of itself, enact and sustain disciplinary recognition of these categories as legitimate. Rather, there is a need for articulation, or organizing through communication, to "talk" disciplinary frameworks into existence.

3.4 Assessment as Articulation: The Institutionalization of New Frameworks

Articulation is defined as "the social process by which tacit knowledge is made explicit or more usable" (Weick et al., 2005, p. 413). The sensemaking practices of noticing, bracketing and presumption, which guide action based upon categories and values that are as yet unnamed, constitute a form of tacit knowledge, or "knowing more than we can say" (Schön, 1983, p. 51). Donald Schön describes tacit knowing-in-action as the means by which "a practitioner can recognize phenomena…for which he [sic] cannot give a reasonably accurate or complete description" (p. 49). Knowing-in-action, like sensemaking, has a "spontaneous, intuitive" quality to it, relying on "mental models" gained from previous practice (Schön, p. 49; Weick et al., 2005, p. 411). In order for such knowledge to be usable for others, however, it cannot remain purely tacit. It must be articulated through established and emerging organizational networks of communication.

Similarly, multimodal assessment, as sensemaking, is not a process confined to individual practitioners. Once sensemaking practices of noticing and bracketing, labeling, presumption and retrospect have produced "plausible stories" about emergent multimodal categories and values, these stories are articulated across writing programs, departments, academic journals and websites, and professional associations (Weick et al., 2005, p. 415). The emergent values recognized retrospectively by writing administrators, scholars

and teachers become codified in assessment rubrics, frameworks, and goals, means and outcomes statements. These same administrators, scholars and teachers then discuss these codified values, circulate them, and seek to uphold and practice them. In this way, articulation *enacts* institutional assessment ecologies. As Bruno Latour (2010) describes the "plausible stories" of sensemaking and organizing, "we are simultaneously *above* the story and *under* it—but never completely…and never at exactly *the same time*" (2). Through articulation, we are both creators and inhabitants of the frameworks we construct for multimodal assessment.

To offer a sense of how multimodal assessment is being articulated across rhetoric and composition networks, we turn to the National Writing Project's Multimodal Assessment Project (MAP). MAP, a group of teachers and researchers engaged in multimodal pedagogy organized by the National Writing Project's Digital Is…Initiative, was tasked with a central question: "What would it look like if the language of assessment was closely aligned with the language used by the creators and readers of digital compositions?" Articulation, then, was at the forefront of this project, insofar as there was a felt need to speak a new "language" of multimodal assessment that could plausibly describe the actual processes of multimodal composers. Moreover, in asserting that "the language of assessment can inform—and build upon—discussions more often associated with interaction, instruction, and text creation than with evaluation," the MAP project claims sensemaking's priority of meaning over evaluation for assessment.

In keeping with Weick's definition of articulation, MAP began by attempting to make tacit knowledge explicit. As Eidman-Aadahl et al. (2013) report, the project committee "worked together for 18 months to surface the kinds of conversations that

teachers and students felt contributed to their development as writers and to incorporate feedback from numerous other teachers and students." At the 2010 Annual NWP Meeting, the MAP committee asked NWP members to participate in the work by using print-based rubrics to assess a variety of student multimedia compositions. As in Wierszewski's study, participants found that "the rubrics named areas of writing performance that were still very relevant for multimodal texts, but in each case very important areas of practice were still invisible" (Jimerson 2011). Also similar to Wierszewski's study, but on a much wider scale, past-tense "reader" responses that may have been private and somewhat ad hoc were being organized, reframed, and circulated as public, ordered, presently relevant practices (Weick et al., 2005, p. 413). A plausible story was being written collectively.

As the MAP committee gathered more and more texts, stories and feedback from participants, it began to develop assessment categories plastic enough to adapt to varied local contexts: "The more we looked at examples of young people's work, the more we listened to conversations among authors and teachers…the more the language of [a] full set of domains—and not just the narrow language of tools or single artifacts or demands of singular assignments—seemed vital" (Eidman-Aadahl et al., 2013). Finding the language of print-based rubrics too limiting, MAP articulated a multimodal assessment framework involving five broad domains: the artifact, or final product; the context, or the rhetorical considerations guiding creation; the substance/content, or "the overall quality or significance of the ideas presented"; process management and technique, or the "processes, capacities, and skills involved in planning, creating, and circulating multimodal artifacts"; and habits of mind, or the "patterns of behavior and attitudes"

encouraged by students' involvement in multimodal composing (Eidman-Aadahl et al., 2013). Since identifying these domains, MAP has worked to introduce and invite discussion about the framework from universities, K-16 classrooms, after-school programs, and other groups and organizations; it has also publicized its findings on the Digital Is… website, in the digital academic text *Digital Writing Assessment and Evaluation*, and elsewhere. Through these various articulations, MAP organizes the sensemaking practices of innumerable practitioners into a retrospective recognition of multimodal assessment values.

3.5 Benefits and Limitations of Sensemaking

Sensemaking shares certain advantages with an infrastructural approach to (multimodal composing) practices. First, it recognizes that various social phenomena—identities, organizations, institutions, traditions, etc.—are not stable or autonomous, and they should not be treated as such in research. Just as an infrastructural approach posits infrastructure as an emergent property that "*becomes* infrastructure *in relation* to organized practices" (italics mine), so too does a sensemaking approach, as a process theory of organizing, draw from a "relational ontology, namely the recognition that everything that is has no existence apart from its relation to other things" (Langley and Tsoukas, 2010, p. 3). This ontology is most evident in how the relational implications of verbs, such as "sensemaking" or "organizing," are privileged over the static nouns "sense" and "organization" (Weick, 1979, pp. 42-47). Sensemaking and organizing are not the independent actions of a singular entity but the work of a collective. Second, sensemaking, like infrastructural inversion, focuses attention on the "indeterminacy of the past" (Bowker and Star, 1999, p. 40). Sensemaking is retrospective in that the "sense" of

the past is not immediately given or readymade. Rather, people talk the past into existence by constructing stories: “Sensemaking is not about truth and getting it right. Instead, it is about continued redrafting of an emerging story so that it becomes more comprehensive…People may get better stories, but they will never get *the* story” (Weick et al., 2005, p. 415). Similarly, infrastructural inversion “implies recovering multivocality…[and] understanding how standard narratives that appear universal have been constructed” (Bowker and Star, 1999, p. 41). Third, sensemaking and infrastructural approaches both investigate how local practices “scale up”; sensemaking discusses how organized articulation can enact new institutional (and cross-institutional) frameworks for meaning, and infrastructural inversion describes the gradual standardization of local boundary objects (Bowker and Star, 1999, p. 312).

However, a sensemaking approach can also have distinct limitations that infrastructural inversion does not necessarily share. The chief limitation is that, despite Weick’s own stated interest in the relationship between sensemaking and institutionalization, sensemaking research in practice often minimizes the role of institutions in how sense gets made. Weick and his colleagues (2005) themselves note the tension between sensemaking and institutional perspectives:

> Discussions of sensemaking often include words like “construct,” “enact,” “generate,” “invent,” “imagine,” “originate,” and “devise.” Less often do we find words like “react,” “discover,” “detect,” “become aware of,” or “comply with.” This asymmetry suggests that people who talk about sensemaking may exaggerate agency and may be reluctant to assume that people internalize and adopt whatever is handed to them…An example of such exaggeration might be the statement,

> "sensemaking is the feedstock for institutionalization" (Weick 1995, p. 36). Institutionalists might well argue that the causal arrow in this assertion points in the wrong direction. The causal arrow neglects evidence showing that organizational members are socialized (indoctrinated) into expected sensemaking activities and that firm behavior is shaped by broad cognitive, normative, and regulatory forces (p. 417).

Critics of sensemaking suggest that sensemaking research has difficulty moving past a micro-level analysis of practices. One sees this, for example, in Weber and Glynn's critique (2006), which argues that sensemaking scholars often subscribe to "a somewhat narrow view of how institutions affect sensemaking, one that emphasizes the role of institutions as internalized cognitive constraints on sensemaking ('taken-for-grantedness')" (p. 1640). As they point out, however, institutions frequently take a much more active role in shaping local practices and may themselves prime, edit, or trigger sensemaking activities (p. 1648). In other words, sensemaking research often fails to take into account how—to adapt Weick's earlier phrase—institutionalization is the feedstock for sensemaking.

3.6 Advantages of Infrastructural Inversion

The limitations of sensemaking research suggest that an institutional (and cross-institutional) research methodology is needed that integrates micro- and macro-levels of analysis. An institutional and cross-institutional research methodology offers the researcher an opportunity to trace local practices across contexts without limiting oneself to a single site or drifting too far into theoretical abstraction. Infrastructural inversion is uniquely suited to this integrative approach. Star (1999) suggests some of infrastructural

inversion's key "tricks of the trade" for handling problems of scale: "studying the design of infrastructure, understanding the paradoxes of infrastructure as both transparent and opaque, including invisible work in the ecological analysis, and pinpointing the epistemological status of indicators" (p. 473). Two of these tricks of the trade in particular, studying the design of infrastructure and including invisible work, suggest infrastructural inversion's integrative advantage.

According to Star, studying the design of infrastructure entails "identifying master narratives and 'others'" (p. 480). To engage in this kind of study is to blur the lines between what is assumed to be macro (the universalizing "master narrative") and micro (the narrative's neglect of incidental "exceptions that prove the rule"):

> Listening for the master narrative and identifying it as such means identifying first with that which has been made other, or unnamed. Some of the literary devices that represent master narratives include creating global actors, or creating a diverse set of activities and interests into one actor with a presumably monolithic agenda ("the United States stands for democracy"); personification, or making a set of actions into a single actor with volition ("science seeks a cure for cancer"); passive voice ("the data have revealed that"); and the deletion of modalities. The latter has been well-described by sociologists of science—the process by which a scientific fact is gradually stripped of the circumstances of its development, and the attendant uncertainties, and becomes an unvarnished truth (p. 481).

As Star indicates, master narratives excel at robbing infrastructural ecologies of their complex relatedness and instead replacing these ecologies with unitary heroic actors (the democratic United States, cure-seeking science, etc.). These global actors have a tenuous

relationship to local "activities and interests," determining these activities and interests completely, yet, at the same time, operating in a state of total detachment from anything that occurs at a micro scale (e.g., the United States' love of democracy will never be shaken by mere "facts on the ground").

When studying the design of infrastructure, then, integrating micro- and macro-levels of analysis means exposing the macro as "no longer…a *wider* or a *larger* site in which the micro would be embedded like some Russian Matryoshka doll, but another equally local, equally micro place, which is *connected* to many others through some medium transporting specific types of traces [i.e., infrastructure]" and through which "master narratives" can be communicated and standardized (Latour, 2005, p. 176). This kind of integration, then, means revealing the "moments when the master narrative in the making [becomes] visible," wherever those moments are found (Star, 1999, p. 481).

Similarly, uncovering the invisible work of infrastructure "means going backstage, in Goffman's (1959) terms, and recovering the mess obscured" (p. 481). By engaging in spatial analysis of the people and places whose work is commonly "unnoticed or is not formally recognized" (p. 482), or by engaging in genealogical research of "the multiple voices and silences" left unrecorded in more formal accounts of the development of infrastructure, one can do justice to infrastructure's connectedness and (often suppressed) inclusivity, going well beyond the traditional separation of macro and micro.

To engage in this kind of connected and inclusive approach is not to discount the benefits of sensemaking theory to infrastructural analysis. The reason for discussing sensemaking at length in this chapter, after all, is to demonstrate its useful similarities to

infrastructural analysis in many respects, particularly in its attention to local communities of practice. Composition Studies qualitative research shares in this usefulness, insofar as it resembles sensemaking theory in this attention to the local, as well. Nonetheless, infrastructural inversion offers the opportunity to improve upon this attention through its sophisticated integration of the micro and macro.

The next chapter will demonstrate how infrastructural inversion's integrative methodology can shed light on a particular policy infrastructure, the Council of Writing Program Administrators' 2014 revision of the national Outcomes Statement for First-Year Composition (OS 3.0), and its affordance of digital composing practices. By studying the design of this infrastructure (through the work of revision), and by surfacing its invisible work (the Task Force revisers' tacit collaborations and unspoken differences), this chapter will seek to make its narratives on composing, digital technologies, genre, and disciplinarity visible.

CHAPTER FOUR: DISCIPLINING THE DIGITAL: A CASE STUDY OF THE OUTCOMES STATEMENT 3.0

In the previous chapter, I proposed that infrastructural inversion was a valuable methodology for exploring policy statements' affordance of digital genres, given its capacity for integrating the micro and macro in its analysis. In this chapter, I discuss how I adopted this methodology for my case study of the 2014 revision of the CWPA Outcomes Statement (OS), also referred to as the Outcomes Statement 3.0 or OS 3.0 (see Appendix A). Following Nate Johnson's assertion that, "[by] conducting detailed historical investigations into the construction of infrastructure, scholars can gain an understanding of the situated rhetorics that become embodied technologies" (2012, p. 2), I argue that, by combining document analysis with semi-structured interviews of those responsible for designing the field's policy statements, rhetoric and composition scholars can gain an understanding of the "multiple voices and silences" underlying the statements. Reporting on my interviews with members of the 2014 Outcomes Statement Revision Task Force, I excavate the conflicting interpretations embedded in particular key terms used in the OS 3.0, such as composing, technology, genre, and disciplinarity. In the concluding chapter, I will discuss my case study findings and indicate what the

coexistence of these conflicting interpretations suggests for the construction of successful policy infrastructures.

4.1 History of the Outcomes Statement, 1997-2014

The first Outcomes Statement, or OS 1.0, was initiated in 1997; following informal discussions on the WPA-L listserv, a loose confederation of rhetoric and composition faculty organized themselves into an Outcomes Collective interested in generating a list of common outcomes for first-year writing programs. After years of drafting and input, OS 1.0 was approved by the CWPA in 2000 (see Appendix B). Notably, as Dryer et al (2014) note, the OS "deliberately avoided an explicit position on computer literacy issues" since the drafters of the document "wish[ed] to avoid exacerbating digital divide issues…[and] also recognized that any specified technology would soon be obsolete" (p. 130). Although this avoidance was understandable in an era when the digital divide was significantly pronounced, it met with increasing criticism in the following years, as digital technology proliferated in students' personal and educational lives. In *The Outcomes Book* (2005), the first retrospective collection tracing OS 1.0's disciplinary footprint, Cynthia Selfe and Patricia Ericsson offered a representative critique: "the Outcomes Statement…focuses largely on traditional writing outcomes, with only the briefest nod to emerging technologies and their impact on literacies" (p. 32). In response to such criticism, CWPA President Shirley Rose commissioned a revision of the OS in 2006. The revised OS (or OS 2.0), approved in 2008, retained OS 1.0's language and structure; however, it also added an addendum, "Composing in Electronic Environments," that offered "common expectations" for digital composing, research, and rhetorical understanding (see Appendix B). In terms of

reflecting the reality of digital technologies in the classroom, this addendum was seen as a significant improvement upon OS 1.0. Nonetheless, OS 2.0 also met with criticism for not integrating the consideration of digital composing throughout the document (B. Brunk-Chavez, personal communication, June 9, 2015).

In 2011, in response to a WPA-L thread initiated by Sidney Dobrin that challenged the exclusion of certain categories of multimediated communication (such as visual rhetoric) from the OS, CWPA President Duane Roen issued a call for another revision (Dobrin, 2011; Roen, 2011). As Dryer et al (2014) note, this call was "motivated by the sense that the field had a broader view of composing than it did a decade ago" and was meant to "explore whether the Statement needed a more systemic overhaul" than provided by the "Composing in Electronic Environments" amendment (p. 130). As a result of this call, ten faculty members were selected for an Outcomes Statement Revision Task Force. For the next few years, the Task Force collected feedback on possible revisions at workshops and conferences and conducted a formal survey of administrators, faculty and graduate students. In gathering this input, Task Force members focused particularly on how to address digital and multimodal composing practices, "interrogating possible terminology (*digital literacy, new media, visual rhetoric*) and if or how both terms and practices should be incorporated into the WPA OS" (p. 133). In July 2014, the new OS draft was approved by the CWPA Executive Board; the OS 3.0 was presented on the CWPA website shortly thereafter and was introduced with commentary in Task Force members' fall 2014 article in *Writing Program Administration*, "Revising FYC Outcomes for a Multimodal, Digitally Composed World: The WPA Outcomes Statement for First-Year Composition (Version 3.0)" (Dryer et al., 2014).

4.2 Preparatory Document Analysis

In keeping with grounded theory practice, extant texts were used to "complement ethnographic and interview methods" (Charmaz, 2006, p. 37). Charmaz aptly describes the value of textual analysis for grounded theory methodology (and, by corollary, infrastructural inversion):

> People construct texts for specific purposes and they do so within social, economic, historical, cultural, and situational contexts. Texts draw on particular discourses and provide accounts that record, explore, explain, justify, or foretell actions…As a discourse, a text follows certain conventions and assumes embedded meanings. Researchers can compare the style, contents, direction and presentation of material to a larger discourse of which the text is a part. As accounts, texts tell something of intent and have intended—and perhaps unintended—audiences (Charmaz, 2006, p. 35).

Given the discursive context that extant texts can provide, analysis of these texts can generate provisional analytic categories and questions to be explored in interviews. Interview data, in turn, can generate codes that refine these categories and questions, challenge them, or produce new categories. This process of "theoretical sampling" is necessarily "emergent" and connective (Charmaz, 2006, p. 102/104).

Four primary extant texts—the OS 1.0, the OS 2.0, the OS 3.0, and the fall 2014 *Writing Program Administration* article introducing the OS 3.0—were used to generate provisional analytic categories. Codes derived from recurrent language in these documents, such as "writing," "composing," "technologies," "digital," "conventions," "genre," "rhetorical situations," "contexts," "audience," and "disciplines," evolved into

four intended interview themes: *kairos* (or the OS 3.0's contexts), composing and technology, genre, and disciplinarity (see Appendices A, B, and C for document language). Interview data on these themes then informed renewed analysis of the OS 3.0's "larger discourse," its "intent," and its "intended—and perhaps unintended—audiences."

4.3 Participants

Participants were chosen because of their role as members of the WPA Outcomes Statement Revision Task Force. All ten members of the Revision Task Force were invited to participate via email. Of these ten members, five agreed to participate: Professors Dylan Dryer, Susanmarie Harrington, Bump Halbritter, Beth Brunk-Chavez, and Kathleen Blake Yancey. All members gave permission to use their real names when publishing interview findings.

Participants all shared a few key commonalities. Each task force member interviewed was a professor in a writing-intensive program, and each was a current or former WPA at the time of the interview. Participants also brought a wide range of past experiences and present concerns to their revision work. Kathleen and Susanmarie were both involved in the "Outcomes Collective" which drafted the first Outcomes Statement (OS 1.0) in 1999-2000, as well as the National Council of Teachers of English's (NCTE) Framework for Success in Postsecondary Education. Beth spoke to her formative experience teaching in and leading the writing program at University of Texas-El Paso, which was "at that moment…the only [writing] program where every student did a digital project in the class" (B. Brunk-Chavez, personal communication, June 9, 2015). Dylan, a noted genre theorist, acknowledged that genre was one of the few "axes I personally had

to grind with [OS] 1.0 and 2.0" but also indicated that digital composing was "not really my wheelhouse" compared to task force members like Bump, Beth or Kathleen (D. Dryer, personal communication, April 27, 2015). Bump, a teacher and scholar of multimodal pedagogy, indicated that his Deweyan commitment to experiential education informed his contributions to the OS. In many ways, the members of the OS Revision Task Force comprised what Lave and Wenger (1991) called a "community of practice," or "a unit of analysis that cuts across formal organizations, institutions like family or church, and other forms of association" (Bowker and Star, 1999, p. 294). As a community of practice, the task force combined a shared commitment to a common project with a heterogeneity of backgrounds, motivations and interests.[5]

4.4 Interview Methods

Task force interviews were designed with the intention of highlighting certain key terms and concepts explicit in OS 3.0 or its accompanying texts and tracing the "multiple voices" concealed in their inclusions and interpretations, as well as the "conspicuous absences" of other terms or concepts. Methodologically, these interviews were inspired by Lee Odell, Dixie Goswami, and Anne Herrington's discourse-based interview approach to exploring writers' tacit knowledge (1983). I adapted the discourse-based interview approach, originally developed to "identify the kinds of world knowledge and expectations that informants bring to writing tasks" (228), to surface the invisible work, multiple voices, and different social worlds of the interview participants and other actors.

[5] Indeed, Kathleen Blake Yancey drew the same conclusion when reflecting upon the work of the original Outcomes Collective: "The participants in creating the Outcomes Statement seem to constitute a community of practice. We had a goal; because of the electronic medium, we interacted very frequently, and we mixed that interaction with f2f meetings, presentations, and workshops. We saw ourselves as an ongoing group, and indeed we accomplished our goal" (Yancey, 2005, p. 216).

In this way, the interpretations surrounding certain key terms in the revised OS (such as composing, technology, genre, and disciplinarity) could potentially reveal the infrastructural uses to which these terms were being put.

Interviews were conducted from April to August 2015. All interviews, between a half hour and an hour in length, were conducted via Skype except for the interview with Bump Halbritter, which was conducted in person at the 2015 Computers and Writing conference in Menomonie, Wisconsin.

Interviews were semi-structured. Though questions posed varied slightly throughout the interviews, each interview provided data on four key themes: the OS revision's *kairos* (or timeliness), which encompassed its origins, influences, and exigences; the understanding of composing and technology in OS 3.0; the understanding of genre in OS 3.0; and the participants' understanding of OS 3.0's disciplinarity. A representative sample of interview questions is included in Appendix C.

4.5 Data Analysis of Interview Themes

I have chosen to present the interview responses below as a "blended narrative" (Morris 2012, p. 40), organized in the order of the particular themes addressed. Because of my intent to surface the different interpretations informing various terms and concepts within OS 3.0 (composing, genre, digital technologies, and disciplinarity), a blended narrative best displays the commonalities and contrasts of the respondents' interpretations.

The limitations of the blended narrative, however, is that it can be difficult to keep track of the variations and nuances of various participants' interpretations of the interview themes. Table 1, included below, is meant to provide a guidepost for the

blended narrative that follows. While participants' interpretations were certainly complex and do not necessarily lend themselves well to simple summative phrases, the categories below do indicate certain emphases evident in participants' views of the *kairos* of OS 3.0, their understanding of composing and technology in the document, their understanding of genre in the document, and their views of OS 3.0's disciplinarity. The blended narrative of interview results that follows elaborates upon these differing interpretations and explains them in more detail.

Table 1. Differing interpretations of interview themes expressed by Outcomes Statement Task Force participants.

Participants	Kairos	Composing and Technology	Genre	Disciplinarity
Dylan	Influence of concerns of 2008	Fills "textual silence"	Agency	Complexity over accessibility
Susanmarie	Policy "atmosphere"	Broader view of composing	Habits of Mind	Translation/ connection
Bump	Living document	Complexity	Experience	Translation: "It's hard just to be me"
Beth	Personal experience with digital	Integration in document	Media Connection	Complexity over accessibility
Kathleen	Consensus document	Difficult to rely just on print	Centrality to Field	Consensus document

4.5.1 The *Kairos* of OS 3.0: Origins, Influences, and Exigences

One intriguing consequence of asking participants about the origins of and influences upon OS 3.0 is that it led them to reflect on the revised document's timeliness, or *kairos*, and the factors that might account for or impede this timeliness. Participants

generally did not discuss individual motivations or experiences when directly asked about the origins and influences of the document; the motivations and influences discussed, rather, were attributed to collectives and even ecologies. In discussing their past experience with the OS and the Framework for Success, for example, Kathleen Yancey and Susanmarie Harrington disavowed any particular credit for their roles in shaping the document. Susanmarie acknowledged that the OS 1.0 had influenced the vocabulary for the Framework for Success, long before the Framework had any influence on OS 3.0; most significantly for her, the "habits of mind" the Framework claims as goals, such as rhetorical knowledge, critical thinking, knowledge of writing processes, and knowledge of conventions "are terms that the OS put into circulation" (S. Harrington, personal communication, May 19, 2015). However, though Susanmarie had been a leading participant in both the original OS collective and the task force for the Framework for Success, at no point did she attribute either collective or individual responsibility for introducing habits of mind into the documents: "[For OS 3.0], we were not so much drawing specifically on habits of mind but, I think, working in an arena, working in an intellectual universe, in which the notion of habits of mind is now circulating. So I don't know that we were so explicitly drawing on it but it was, like, in the atmosphere" (May 19, 2015). The ecological flavor of this response—constructed in terms of arenas, circulation, atmospheres, and universes—is telling. It aligns closely, in fact, to Susan Leigh Star's understanding of group dynamics as ecologies, which drew considerably from symbolic interactionist language of "social worlds" and social "arenas" (Clarke 2015, pp. 88-89). Moreover, in terms of the *kairos* of the document, it demonstrates an understanding that "what is afforded in a kairotic situation is no longer something simply

willed or achieved by an individual," but rather that "the situational environs can be a 'willing' and inventive agent" (Rickert, 2013, p. 95).

Even more emphatically, Kathleen rejected the notion that there was any one-to-one correspondence between the collective work of the task force and individual members' experiences, philosophies and pedagogies. Rather, the perceived needs of students were the primary drivers of particular revisions. In her own words, "[OS 3.0] is really less about representing my particular views or my particular inheritances than it is about trying to articulate what the common experiences and expectations are for many different programs across the country…[T]his isn't really about what teachers value. It's about what the students need" (K.B. Yancey, personal communication, August 17, 2015). Kathleen clarified that she was not claiming that her pedagogy and past history played no role at all in her work on the Statement: "I had a colleague…who used to say we all read out of our own experience. And I read out of my own experience too." However, even with this caveat, she insisted that the work of revising OS 3.0 operated on a different level than the preferences and biases of any one individual or any group of individuals. It was, rather, the work of crafting a "compromise document," "a consensus document," one "speaking to lots of different programs and teachers and students in lots of different places" (personal communication, August 17, 2015). This work required, to borrow Susanmarie's language, pulling from the atmosphere—speaking on behalf of a cross-institutional ecology of needs, demands, promises, compromises, expectations, and limitations.

Similarly, the other participants largely avoided personal narratives in discussing the origins of their involvement in the task force. Like Susanmarie, Dylan attributed OS

3.0's impetus to collective concerns, although he also spoke to the lag between these concerns and the OS's response to them, noting that "the date on the OS 1.0 is [2000], but that makes it hard to remember that that is a distillation of things that people thought were important in the mid-'90s—just as this one [the 2014 OS 3.0] is sort of the quintessence of everything we thought was important in 2008" (D. Dryer, personal communication, April 27, 2015). Bump pointed to the extensive feedback collected through conferences, workshops and the WPA listserv, concluding that "in terms of the influences, we were a pretty well-distributed group" (B. Halbritter, personal communication, May 30, 2015). Beth was perhaps the one exception, describing the unique perspective she was able to bring as a professor (and later Director of First-Year Composition) in the Rhetoric and Writing program at University of Texas-El Paso, "at that moment…the only [writing] program where every student did a digital project in the class." She described how this experience informed her early awareness of the potential for the OS to afford digital composing, indicating that "we did use the OS as one of our starting points when we redesigned [our] program" (B. Brunk-Chavez, personal communication, June 9, 2015).

While participants did not revisit the revised document's origins in much detail (at times referring me back to the 2014 *WPA* article), they spoke freely and openly about the question of its timeliness. Task force members seemed to agree that OS 3.0's success meant, to a certain extent, surrendering one's own agency and control. They described a delicate balancing act in revising the document, responding to present felt needs while remaining aware both of certain conservative biases within the discipline and the fleeting nature of the present moment. Even as they expressed satisfaction in the work they had

collectively done, interviewees did not see their revision of OS 3.0 as definitive or permanent. For example, noting that OS 3.0 had already been revised twice, Bump Halbritter asserted that "[a]s we would imagine this OS to be a living document, I would imagine at some point it's going to change because we are going to change. And as we change, we're going to bring more things or different things or less things to this OS" (B. Halbritter, personal communication, May 30, 2015). Similarly, interviewees were frequently concerned about how quickly the document could go "out of date," and the rapid transformations in digital communication were an obvious motivation behind this concern. Susanmarie pointed out that "the original OS really did suffer from seeming to be out of date almost as soon as it was released" when it came to digital composing (S. Harrington, personal communication, May 19, 2015). This is a fate that several Task Force members seemed particularly eager to avoid for the OS 3.0, as the discussion throughout this chapter will evidence.

4.5.2 Composing and Digital Technology

When discussing the key revisions to OS 3.0, the Task Force's 2014 *WPA* article highlighted the document's "explicit working definition of *composing*" as "what may be the largest revision apparent in the WPA OS" (Dryer et al., 2014, p. 138):

> In this Statement, composing refers broadly to complex writing processes that are increasingly reliant on the use of digital technologies. Writers also attend to elements of design, incorporating images and graphical elements into texts intended for screens as well as printed pages. Writers' composing activities have always been shaped by the technologies available to them, and digital

> technologies are changing writers' relationships to their texts and audiences in evolving ways (CWPA, 2014).

For Dryer et al, this definition of composing marked the document's long-overdue adjustment to a "multimodal, digitally composed world." The authors underscored, in particular, the contrast to earlier documents' emphasis on "writing" as the privileged term: "where the former versions approached writing as a more stable act—even among emerging technologies—the new version embraces emerging forms of composing in a world of fluid forms of communication" (p. 138). Though not explicitly stated in the article, one of the most significant feature of OS 3.0's explicit definition was the acknowledgement that composing and technology are inseparable ("Writers' composing technologies have always been shaped by the technologies available to them").

In order to explore the implications of this new language for enabling various programmatic practices, respondents were asked the question, "Do you think this explicit definition of composing changes the way the WPA OS can be used? If so, how? If not, why not?" (see Appendix D). As a follow-up question, they were frequently asked, as well, about the relationship between composing and the document's language on technology, specifically the terminological choices made to describe digital composing.

Several respondents echoed the *WPA* article in pointing out OS 3.0's use of the term "composing" was very different from OS 1.0's use of the term "writing." Dylan, for instance, posited that

> …if you think about it as a textual silence--the assumption that what writing was, was self-evident—the effect of that [silence], it seems to me, was that [OS 1.0]

> allowed the term to be defined passively in a fairly limited way. We didn't stake out a definition of what writing meant, and that meant that, for a lot of folks outside of composition or outside first-year writing programs, and even within it, to define writing as a fairly traditional, paper-based, school writing…[The lack of definition] had the effect of allowing other people's assumptions about what writing was to rush in through that silence (D. Dryer, personal communication, April 27, 2015).

Dylan's idea of a "textual silence" in OS 1.0 suggests a clear kairotic moment missed by the document and, further, the infrastructural power of the OS to afford composing practices. OS 1.0's silence in the face of a "multimodal, digitally composed world" encouraged stakeholders in and out of the field to endorse a conception of writing as alphanumeric, print-oriented, and comprised of the belletristic school genres familiar since the current-traditional era. While Dylan later indicated that he understood the Outcomes Collective's decision not to address technologies—since "they didn't want to seem to be endorsing specific technologies which they rightly predicted would be obsolete by the time they came to press"—he also regretted that OS 1.0's textual silence "effectively precluded [other] definitions of writing that might only have underscored what a wider range of people might want to do in a first-year writing program" (D. Dryer, personal communication, April 27, 2015). We can read this silence as pointing to an infrastructure's power to construct what Star and Bowker (2007) call "residual categories," or "that which is left over after a classification is built—'none of the above' and 'not otherwise specified' are typical locutions" (p. 274). Without any inclusion in OS 1.0, the possibility of digital and multimodal composing is made into a residual category,

an “other” lacking any formal legitimacy and earning, at best, only tacit, tangential support.

In OS 3.0, by contrast, the new language on composing actively accounted for the “complexity” of writing. Bump, for example, indicated that “the big difference I see in the 2014 version versus the 2008 version is a complexity of the notion of what we think of as writing” (B. Halbritter, personal communication, May 30, 2015). For Dylan, this complexity meant moving beyond a notion of writing as “fairly traditional, paper-based, school writing.” Composing accomplishes this goal since it “is a word that applies as well to the visual or to the aural as it does to the traditional scriptive” (D. Dryer, personal communication, April 27, 2015). In other words, “composing” opens the door to the other “definitions of writing” that OS 1.0 had left out.

Accordingly, task force members often pointed to the explicit definition of composing as affording multimodal and digital composing practices within writing programs. Kathleen spelled this use of the OS the most straightforwardly: “if you want the OS to influence your program, it would be more difficult to have a program that was exclusively oriented to print” (K.B. Yancey, personal communication, August 17, 2015). Referring to her own experience with digital projects at El Paso, Beth agreed that “I think that any program that’s sort of leaning toward doing something different has that idea in their head, like, are we composing or are we writing?” and that, in order to support programmatic innovation, OS 3.0 “embeds [composing] that much more deeply and integrates it in ways the previous statement didn’t” (B. Brunk-Chavez, personal communication, June 9, 2015). Susanmarie marveled that, while the first Outcomes

Statement chose to avoid referencing technology due to concerns over students' digital access, "one of the things that has clearly changed between now and the first one is much more ubiquity of people having access to different sorts of composing technologies" and that, at present, "the concern [of access] wouldn't keep you from trying to broaden out composing just because, I mean, now people can compose on their phones for writing" (S. Harrington, personal communication, May 19, 2015).

Interestingly, several of the respondents also acknowledged that this new attention to the digital required a delicate balancing act. One concern was that inclusion of particular digital composing technologies and practices would diminish the timeliness or *kairos* of the OS. According to Susanmarie, "We were really aiming to broaden out without tying ourselves to any particular technology to avoid that problem of the new thing that will come about in three years that the OS failed to name" (S. Harrington, personal communication, May 19, 2015). Beth, too, acknowledged that OS 3.0 does not mention specific digital genres or specific digital composing practices by name for fear of going out of date: "You're right, we didn't [talk] about wikis and blogs, because in two years, who knows?" (B. Brunk-Chavez, personal communication, June 9, 2015). Kathleen indicated that she had not tried to include any mention of electronic portfolios (a central piece of her research) into the OS outcomes, since "this wasn't something that the field has really been engaged in" (K.B. Yancey, personal communication, August 17, 2014). A few respondents also addressed the persistence of digital access difficulties for students and (in some cases) writing programs alike. Susanmarie, for example, contrasted Bump at Michigan State "experimenting with funky sound cloud podcasting projects" with "somebody at an institution where…maybe you've got commuting students with

very uneven levels of access to different sorts of technology and maybe you're just doing things that get printed on a piece of paper and that get handed in…" (S. Harrington, personal communication, May 19, 2015). The implication, of course, was that the OS had to be able to speak to the needs of both of these teachers' students.

In response to these various issues, the Revision Task Force consciously chose to use language that could accommodate both digital and "analog" technologies. Dylan expressed this choice aptly, underscoring the digital divide as a key motivating factor: "the goal ultimately as we began to sort through the words to use [for composing outcomes] was could you use this language…in a writing program where the writing technologies were still fairly analog? So, could you use this OS plausibly in a program that wrote on typewriters?" Like Susanmarie, Dylan argued that the point of the composing outcomes was not to privilege any particular technology ("This doesn't have to be about InDesign or Adobe Pro"), but to cultivate an awareness of all technologies' potentialities as technologies ("there's no reason you couldn't read that and apply that interestingly to fairly conventional composing technologies") (D. Dryer, personal communication, April 27, 2015).

In order to cultivate this awareness, respondents suggested, the language on composing was both inclusive and ambiguous; the words "complexity," "capacious," and references to diverse or various composing practices were repeated consistently throughout the interviews. In terms of inclusivity, Beth stressed that she felt like language connecting composing and technology "is everywhere" in the document, referring to terms like "design," "medium," "writing technologies," and "capacities of different

environments (print and electronic)" that were dispersed throughout OS 3.0's "Rhetorical Knowledge" section and elsewhere. She also discussed how including the notion of "intellectual property (fair use and copyright)" in the "Knowledge of Conventions" section opened the door to considering how composing "is different from writing, it's something a little bit bigger than writing" (B. Brunk-Chavez, personal communication, June 9, 2015). On the other hand, Susanmarie conceded that, while "we do say that you students should learn these key rhetorical concepts through analyzing and composing a variety of texts…we don't really specify what that variety is." Referring back to the access issues she had discussed, Susanmarie argued that this ambiguity "lets both instructors on both of those extremes define what the variety is going to be, given whatever constraints or affordances might be possible with the technologies that are available to students" (S. Harrington, personal communication, May 19, 2015). In other words, the language on composing affirms the work that various programs are doing, no matter what kinds of technologies are available to them, so long as this work acknowledges the complexity of composing.

Similarly, Bump described the efforts of the task force to use inclusivity and ambiguity to negotiate the document's tension between composing and writing:

> The statement introduces two different ideas: composing as a verb, mostly, and writers as people who do composing. So both writing and composing live side by side within the document…I wouldn't say that we [on the task force] all share the same position in composing and in writing. That said, we felt that potentially the differences actually represent the differences in the field as well. That there is no

> one way of approaching either writing or composing…And so, in the surface of all that writing, I think that the term composing comes out as a number of ways of going about doing the things that writers do, whether or not we call whatever it is that they do, a piece, a noun, of writing. So I think that was one of the tensions that was always living in this kind of an OS, and that is: how do I keep this [document] robust enough to be able to say that we don't want to only use a word, "writing," which may make some people funnel everything toward an idea of writing as a noun, and diversify it, without actually estranging the fact that, well, we teach writing, we're a bunch of writers (B. Halbritter, personal communication, May 30, 2015).

For Bump, then, the explicit definition of composing suggests the multiplicity of practices and projects in which writers are engaged; it "diversifies" the idea of writing. This affordance of multiplicity makes it acceptable to a task force, and a field, that exhibits marked disagreements in their "position in composing and in writing." At the same time, it also allows for cooperation around a common goal, namely, that "we teach writing, we're a bunch of writers." It's this combination of multiplicity and cooperation, Bump implies, that makes the document "robust." In presenting the document this way, he echoes Dylan and Kathleen's acknowledgment elsewhere that the OS Revision Task Force intended the OS 3.0 to work as a "boundary object." Indeed, the language Bump uses echoes Star and Griesemer's own definition of boundary objects: "objects which are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet *robust* enough to maintain a common identity across sites" (2015, p. 176, italics mine).

Tellingly, respondents also signaled that their textual embrace of inclusivity and ambiguity was not limited to the definition of composing alone. They also indicated that it encompassed changes to the document's language on genre.

4.5.3 Genre

In discussing "genre" in OS 3.0, the 2014 *WPA* journal article indicates that changes have been made to the statement regarding genre, but it does not necessarily specify what those changes are: "Statement 3.0 revises its construct of genre by consolidating it with the purposes and foci we now understand to be shaped by genre" (Dryer et al 138). This begs the question, of course, what *are* such "purposes and foci." Thus, in order to clarify their interpretations of the document's revisions, respondents were asked to address whether Statement 3.0's understanding of genre had changed from the previous two statements, and if so, how. Respondents' answers to these questions varied strikingly; as Beth Brunk-Chavez suggested in her response, "I think that every person on the committee that you talk to would probably have a slightly different interpretation of what that [the understanding of genre] means" (B. Brunk-Chavez, personal communication, June 9, 2015). In spite of these differences, the task force members were largely in agreement that the previous statements' understanding of genre was inadequate and that OS 3.0 worked to remedy this. Thus, much like in their discussion of composing, respondents pointed to their efforts to ground different approaches to genre in a shared purpose—rejecting the idea of genre as static form (which, as has been discussed earlier, often becomes associated with print-oriented texts) and stressing the role of composers in the construction of genres.

Dylan emphatically indicated that the understanding of genre had changed in OS 3.0 from the earlier versions of the Statement. Discussing the "Rhetorical Knowledge" and "Conventions" sections of the first OS, Dryer highlighted outcomes such as "Understand how genres shape reading and writing" and "Develop knowledge of genre conventions ranging from structure and paragraphing to tone and mechanics." For Dylan, this language indicated that "genres are basically described as containers." He contrasted the above outcomes with the "very substantial reframing of genre in 'Rhetorical Knowledge'" in OS 3.0, pointing for instance to the outcome, "Gain experience reading and composing in several genres to understand how genre conventions shape and are shaped by readers' and writers' practices and purposes." The last phrase of this outcome—"and are shaped by readers' and writers' practices and purposes"—was particularly important for Dylan because it demonstrated how, throughout the new document, "students and readers and writers generally are constructed as much more agentive. And so knowing and understanding that genres change and that readers and writers participate in that change is, I think, a significant change in the construct of genre described here" (D. Dryer, personal communication, April 27, 2015).

Bump shared Dylan's notion that OS 3.0 afforded a more agentive participation in genre, although he approached the question from an explicitly Deweyan perspective. Bump made a distinction between the original document's emphasis on "understanding of" or "knowledge about" genre and the revised OS's emphasis on the "relationship to" genre. In responding to the question, "Has the understanding of genre changed from the previous two statements," he unexpectedly replied, "No. However, the relationship to genre has changed." Reflecting on genre-related outcomes in the "Knowledge of

Conventions" section in the 2000 OS 1.0, such as "Learn common formats for different kinds of texts" and "Develop knowledge of genre conventions," Bump listed off the key terms emphasized—"Formats, genres, documentation, prescriptive grammar"—and concluded that the message communicated by these outcomes "seems to be, 'Develop knowledge of' these things that are external to the writer.'" In other words, the writer's relationship to genre was subordinate or irrelevant to the goal of developing the writer's knowledge about stable conventions and "common formats." In the 2014 OS 3.0, on the other hand, "the key terms here are generally why, experience, explore, practice. So here, genre conventions now come up [as] 'Understand why conventions vary.' 'Gaining experience negotiating variations in genre conventions.'" For Bump, the key change to the understanding of genre, in terms of language and conceptual apparatus, was the inclusion of experience; he argued that "the language of experiential learning is [now] built into the language of the OS [3.0], so that it is not as foreign to experiential learning situations as potentially what the other OS [1.0] was..." Again, though Bump uses somewhat different language from Dylan's (with, possibly, somewhat different philosophical and practical implications) to describe the changes made to genre, this language moves in tandem with their effort to acknowledge readers' and writers' participation (B. Halbritter, personal communication, May 30, 2015).

Susanmarie, too, was very cognizant of the need to move beyond the static formalism of former notions of genre and to embrace genre as experiential. She credited Dylan for bringing these ideas to the forefront: "Dylan was really pushing us to keep remembering that genre—the repeated conventions of genre—come out of repeated engagement with recurrent situations, and people who have values and needs, and

whatnot. And so [we were] wanting students to have that experience, coming to see texts as things that truly are created because they fit a rhetorical need." Even as she was in fundamental agreement with Dylan and Bump, she expressed these agreements using very different vocabulary, framed largely around "habits of mind."

Susanmarie indicated several times that the outcomes should focus on genre as practicing various habits of mind, rather than as satisfactorily producing (or reproducing) the formats of specific documents. Pointing to one particular new outcome in the "Rhetorical Knowledge" section, "Develop facility in responding to a variety of situations and contexts calling for purposeful shifts in voice, tone, level of formality, design, medium, and/or structure," Susanmarie commented:

> the point there is not so much being that you write in different genres as though it's a cookie cutter—that you've written a letter that has these features, and then you're writing an essay that has these features, and then you're going to write an opinion piece that has these features. The shift was**…**in students discerning the elements of the rhetorical context and letting the features of the text emerge because of that analysis.

In "discerning the elements of the rhetorical context" when performing genre, Susanmarie suggested, students were cultivating the habit of mind that is rhetorical knowledge, "the ability to analyze and act on understandings of audiences, purposes and contexts in creating and comprehending texts." Susanmarie then gave other examples of this kind of generic activity corresponding to particular habits of mind: "There's a habit of mind about taking responsibility for making choices and understanding their

consequences, and the habit of mind regarding creativity…" Only Susanmarie described this agentive, experiential responsibility as a "habit of mind," drawing from her previous collaborative policy experience with the Framework for Success in Postsecondary Education. However, the focus on "responsibility for making choices" corresponds to Dylan's notion of genre as an "agentive process" and Bump's notion of genre as "experience" (S. Harrington, personal communication, May 19, 2015).

Of all the respondents, Beth Brunk-Chavez drew the most direct links between this expansive notion of genre and the document's affordances of digital composing. Referring to the 2008 OS 2.0, which included the technology plank, she asserted that "in the previous document, genre was more text-based, obviously, right?...Because that last plank was separate from everything else, that technologies or whatever media we use to write compose, and deliver the projects, were kind of separate from what they [the projects] were doing, if that makes sense." In this interpretation, OS 2.0 still positioned technology as a supplementary tool clearly distinct from the composing processes and rhetorical actions embedded in students' projects[6]. In the OS 3.0, on the other hand, the understanding of genre as agentive or experiential means that it is inseparable from the medium of composition chosen:

> I think this one [the revised OS] considers genre as much wider, obviously it's not just print-based, it's not just text-based. It can be not text at all, it can be a hybrid version of text and images, or text and video. And the genre is really influenced

[6] Indeed, Michael Callaway makes a nearly identical argument regarding the 2008 OS in Behm et al (2013): "Although the 2008 revision of the WPA OS addresses some [digital] concerns, it does not move much beyond the 1999 version in terms of its focus on technology as a tool" (p. 275).

> by what we compose with, and that affects how that message gets delivered as well.

As in the case of the explicit definition of composing, the construct of genre now also encompasses multiple ways of doing things (as opposed to "common formats"). Beth noted, as well, that this multiplicity extended to "genres and conventions across disciplines." Though previous versions of the OS may have implicitly prioritized traditional first-year composition genres, such as the privileged position of the paper-based research paper identified by Dylan, the 2014 Task Force debated "the value of just teaching those English composition genres vs.—and understanding what's happening in students' writing lives, so what are they writing outside our courses…And when we call something a lit review, that's not the same as a lit review, as [the document] says, when they're writing in Psychology." Pointing to language in the "Knowledge of Conventions" section that explicitly stated that conventions "vary by genre…by discipline…and by occasion," Beth argued that this afforded a much more fluid, context-driven understanding of genre practice (B. Brunk-Chavez, personal communication, June 9, 2015).

However, Beth, too, recognized that the expansion of genre across media and disciplines in OS 3.0 also required a degree of prudence. For example, she admitted that OS 3.0 does not mention specific digital genres or specific digital composing practices by name. Beth linked this decision to the *kairos* of the document and the concern of quickly going out of date: "You're right, we didn't [talk] about wikis and blogs, because in two years, who knows?...I was writing a little document about Google Docs. And then it

changed to Google Drive, right…So that's a good example. If we were to put, 'Collaborate on Google Docs' [as an outcome], it's already past." Given the rapid rate of technological change, Beth echoed the concerns of other task force members in worrying that several digital composing practices in the present, whether they be blogs, wikis, or Google Docs, may quickly become defunct. In that case, enshrining them in OS 3.0 would only serve to make the document less flexible and more immediately in need of further revision. Generality, in this view, would better prolong the document's timeliness[7] (B. Brunk-Chavez, personal communication, June 9, 2015).

On this question of timeliness, Susanmarie and Kathleen offered welcome perspectives, having served on the first Outcome Collective and vividly recalling earlier debates about genre. For Susanmarie,

> Perhaps one of the reasons that the genre stuff struck me so much is that I remember when we were editing the first version of the OS, getting it ready to go out for executive committee approval and whatnot, we were still arguing about whether genre itself was a term that should be used in the statement or not because was it a term that was too much of an insider term, and, obviously, it's here now (S. Harrington, personal communication, May 19, 2015).

As in Beth's discussion of digital genres, Susanmarie revealed an early anxiety that the term *genre* might be too specific, "too much of an insider term," to aid the document's

[7] This was not necessarily a universally shared view on the part of the task force. Kathleen identified OS 3.0 as a "more explicit document," pointing in particular to "the definition of composing" and "being willing to mention by names specific genres to show what we mean by differences in genre" (K.B. Yancey, personal communication, August 17, 2015). Indeed, the opening to the "Knowledge of Conventions" section bears out this claim, discussing lab reports, notebooks, discussion board exchanges, and literature reviews as specific genres. However, for the most part, this claim did not touch upon digital genres.

public or cross-institutional utility. This corresponds with other contemporaneous accounts indicating that "not everyone who might choose (or be called upon) to interpret and implement the OS will necessarily read the term *genre* in a way that is informed by recent genre theory," since "genre isn't a term with much currency for a lot of people in English studies" (Liu 2005, pp. 72-73). In the end, however, the OS included the term—"obviously, it's here now"—and the expanded notion of genre in OS 3.0, Susanmarie suggested, signaled genre's present timeliness.

Kathleen built substantially on this notion of genre as a term whose time has come. Echoing Susanmarie's concern about genre being an "insider term," she questioned that the sophisticated notion of genre described in the various iterations of the OS was shared by the public, or by writing teachers *en masse*, even up to the present:

> in the first one, we had a lot of discussion about whether we should even include the word 'genre'…there were two questions. The chief one was really an audience question, so, who is this for? Will people reading the document understand genre? The second involved—there was a question about, even in terms of teachers of writing, whether that [genre] would make sense to them. I talked to someone just in the last month, who was quite certain, you know, she was still enamored of modes. She didn't understand genre, she understood modes. She basically saw genre, if she saw it at all, as a form or format (K.B. Yancey, personal communication, August 17, 2015).

At first glance, Kathleen's discussion here might seem to argue against the inclusion of genre in OS 3.0. For members of the public, even for writing teachers, genres are still understood largely as forms. In this, not much would seem to have changed between OS

1.0 and 3.0; as early as 1999, Irving Peckham confessed that "one of the problems with genres is that people who haven't read very much about them think they refer to the modes" (Liu 2005, p. 73). How can the term "genre" be timely, given such reception?

However, Kathleen's next words indicated her belief that the understanding of genre had, in fact, changed in OS 3.0, and that this change has significant implications when making sense of the document's timeliness and audience. As Kathleen argued, though the writing public may perpetuate an outdated notion of genre, there has a substantial *scholarly* or *discipline-wide* shift in Rhetoric and Composition's consideration of genre, one which is reflected in OS 3.0:

> I think, in the last fifteen years, the field has become much, much savvier about genre. I'd simply point to the wealth of research on the topic, the interest in genre as a portal for students…I think that genre is central to the field in theory, in research, and in practice in a way that it was not fifteen years ago (K.B. Yancey, personal communication, August 17, 2015).

The document's understanding of genre had changed, in other words, because the *field's* understanding of genre had changed, i.e., "the field has become much, much savvier about genre." Once again, we see this concern with "timeliness" in relation to the field. This concern, in Kathleen's case, corresponded with her sense of the WPA OS, in each of its iterations, as a "consensus document." In this view, OS 3.0 should reflect the consensus of the field. To do otherwise as policy, according to Kathleen, would be counterproductive: "we didn't move as far as I might want to see us move. I don't think the field's ready for that. I don't think that represents consensus practices" (K.B. Yancey,

personal communication, August 17, 2015). In other words, Kathleen saw the document as playing "catch up" to where the discipline is.

To be sure, Kathleen nuanced this focus on Composition Studies' relationship to genre with an awareness that genre had also become increasingly relevant across the curriculum, in spite of persistent misunderstandings of the term. Discussing the Outcomes Statement's potential as a "bridging document," Kathleen used Mary Soliday's *Everyday Genres* as a touchstone for the bridges to be built:

> It's very interesting to me that Mary Soliday titled her book *Everyday Genres.* It's basically a work about writing across the curriculum. The fact that she could title a book *Everyday Genres* tells you…that genre really has taken hold in the field in any number of contexts. So, not just from high school to first-year comp, but also in terms of WAC, also in relation to activity theory…and also in terms of everyday writers, the kinds of writing that everyday laborers do, for civic writing for example, and writing in the workplace, as far as that goes…And I think that, to some extent, is reflected in some way in the document. I can imagine some people who are scholars of genre wanting to have seen more in it. But then I'll got back to the idea that it's a consensus document (K.B. Yancey, personal communication, August 18, 2015).

As in the case of composing, Kathleen pointed to the delicate balancing act between inclusivity and ambiguity that the task force had engaged in. On the one hand, OS 3.0 introduced language that could afford a more complex version of genre, one that could prove useful in a variety of contexts: digital composing, high school composing, WAC,

professional writing, and so on. However, in order to gain "consensus," both inside and outside the field, the task force had to weigh how field-specific it made its language. This became one of the key issues the various interviewees debated in responding to the question on disciplinarity.

4.5.4 Disciplinarity

Disciplinarity was, perhaps, the term for which participants offered the sharpest divergence in understanding, belying the consensual language they used in the article: "The language of the revision itself signals a different stance to our stakeholders, most explicitly by its increased assertiveness about the need to base programmatic decisions on disciplinary knowledge" (139). During the interview, respondents were read this quotation from the article, then asked, "Is this your understanding as well? If so, do you think this different stance changes the way the OS is used? If not, why not?" (see Appendix D). Intriguingly, in spite of the declaration of shared and explicit "assertiveness" on the subject, almost all respondents struggled with the question about disciplinarity, in one way or another. In some cases, this struggle with the question stemmed from a perceived need to assert the disciplinary expertise of writing scholars, teachers, and administrators and the desire to articulate this assertion both forthrightly and diplomatically. In other cases, respondents struggled with the rather surprising conclusion that conventional definitions of disciplinarity did not correspond with their understanding of the Outcomes Statement's efficacy.

Task force members' responses to this question more or less separated them into two groups. The first group were those who (either strongly or with reservations) affirmed that the statement above expressed their understanding of the document's

disciplinarity. Dylan Dryer was perhaps the most vocal advocate of this viewpoint. When asked to explain why he thought this was the case, he responded, "Well, because we know more than we did 15 years ago?" Referring to the Introduction to OS 3.0, which states that "[t]hese outcomes are supported by a large body of research," Dylan observed that, in previous versions of the OS, "we didn't signal explicitly to our substantial body of knowledge in our field that undergirded our Statement. I don't know that, in 2000, you would have had unanimous consensus on that. I think we have now." Throughout Dylan's response, the terms "knowledge," "research," "consensus," and above all "complexity" were privileged; in privileging these terms, Dylan signaled that Composition Studies shared many of the traditional features of a scientific discipline. He asserted that "we *know* that composing processes are complex," providing as one key example contemporary research disputing Composition Studies' former stage process model of writing, in which "there's one way to write, and it's called The Writing Process." For Dylan, the complexity embedded in OS 3.0's definitions of composing and genre did not represent pedagogical preference or lore, but "disciplinary expertise," and it needed to be defended as such. Indeed, he suggested that it should function as a litmus test for writing program administration: "That's the kind of disciplinary expertise the writing statement both calls on others to recognize but, not too fine a point on it, also demands of ourselves as a practice. If you're not familiar with this body of work, then you should not be directing a writing program" (D. Dryer, personal communication, April 27, 2015).

This emphasis on research and expertise in OS 3.0, according to Dylan, was closely tied to a refined understanding of the Outcomes Statement's audience. In making

this claim, Dylan stays true to the revised understanding of audience expressed in the 2014 *WPA* article:

> The introduction of [OS] version 1.0 struck an exceptionally difficult rhetorical balance between terminology that "the general public can understand" and "communicating effectively with expert writing teachers and administrators." Yet as the substantial scholarly literature on the WPA OS points out, most of those encountering the document are neither the general public nor expert writing teachers…rather, they range from faculty with expertise in other disciplines to a significant number of contingent and/or novice instructors with disparate beliefs and instructional priorities, many of whom are still without much formal professional development in writing studies or teaching (Dryer et al 139).

As a result of this perceived need to communicate with the general public, Dylan inferred, the first Outcomes Collective strove to make OS 1.0 "as jargon-free and as accessible as possible." For Dylan, "that was probably a mistake. I understand and respect the intention for it, but I think that the first two iterations of the OS dramatically understate the complexity of what we do." By contrast, he argued that, given the primarily disciplinary audience for the document, the balance should be shifted to prioritizing complexity over accessibility. He indicated that

> I was more than willing…to give up some of that accessibility in order to present a text that some folks were going to have to struggle with a little bit more. That too gets at that disciplinarity issue that you're talking about. That it's not that important whether other people understand it…I don't know of any other

> organizations that have gone to such great lengths to make what they do so transparent (D. Dryer, personal communication, April 27, 2015).

Again, Dylan drew a parallel to the scientific disciplines: in this telling, "other organizations" did not allow concerns with popular accessibility to affect the rigor and complexity of their disciplinary work.

Beth, too, expressed general agreement with Dylan's understanding of how the document's audience had changed. She confirmed that the OS's emphasis should be on speaking to composition practitioners and facilitating the disciplinary enculturation of novice members:

> Before, we used to say, 'It's for everyone!' It can be for administrators, it can be for parents, it can be for the public. But that was a very optimistic, I guess, vision of who actually would read it? And I think this comes a lot from Dylan, Dylan's point being that we need to write a document that's reflective of our field and that is written for people who understand what our field is about. And so the density of the document is obviously…it's more dense than I think previous ones were, it uses language that is more familiar, I think, to us, but I think in a way that also creates buy-in with the people who teach composition or shows them these are at least the kinds of things that you should know about, and if you don't, let's figure out ways to manage that (B. Brunk-Chavez, personal communication, June 9, 2015).

Thus, for Beth, the shift toward density and complexity in the OS 3.0 had an important function in addition to asserting disciplinary expertise; it provided a shared vocabulary to

facilitate the "legitimate peripheral participation" (Lave & Wenger 1991) of all those working in Composition Studies, whether an experienced teacher and scholar, a novice instructor, or contingent faculty with expertise in another discipline.

This commitment to complexity, and its clear separation of compositionists from the general public, suggest that Dylan and Beth were enacting what Thomas Gieryn (1983) names "boundary work." According to Gieryn, boundary work entails the "attribution of selected characteristics to the institution of science (i.e. to its practitioners, methods, stock of knowledge, values and work organization) for the purposes of constructing a social boundary that distinguishes some intellectual activities as 'non-science'" (782). It emerges, then, from an explicitly "demarcative exigence," a need to establish that certain intellectual questions are the exclusive province of the scientific community in question (Wilson and Herndl 2007, p. 132). In the case of the Outcomes Statement, this exigence is best understood alongside OS 1.0's emergence in response to the standards movement of the 1990s and the field's persistent wariness of outsider influence. In the face of efforts by national political and administrative entities to impose standardized curricula and testing in various educational settings, those involved in the first Outcomes Collective "indicated that providing some professional sanction for their work was a primary goal in their work on the OS. In fact, that very sense of professional agreement and sanction was vital in the genesis of the OS work…" (Ericsson 2003a, p. 158). Such sanction would imbue writing instructors with the kind of professional *ethos* generally reserved for the sciences and protect against undue interference in their field. Similarly, Dylan and Beth both express a desire to bring OS 3.0 in line with "other [academic and professional] organizations" whose recognized expertise ensures that they

don't have to "go such great lengths to make what they do so transparent" and can focus, instead, on encouraging "buy-in" from their own members.

Susanmarie's response complicates this desire for boundary work somewhat; she agrees that the OS 3.0 is disciplinary, but with some significant reservations about how the term is used. Susanmarie affirms that "[OS] 3.0, especially compared to 1.0…is a much more confident document. With 1.0, there was some concern that the outcomes could be used against people. You know, that somehow, your dean or your chair [might say] there's something wrong with your program because you're not doing all these things." Again, this concern with outcomes can be placed within the context of the standards movement of the 1990s. There was a perceived need to address the document to external stakeholders, in order to defend writing programs from external interference. This resulted in an ambivalent positioning of the OS vis-à-vis external stakeholders, that the OS functions as an offensive tactic, but one also vulnerable to assault and in need of defense. Susanmarie aptly expresses this ambivalence: "I think there was also a sense that we can take our document to people in authority and this document is going to help us advance ourselves. So it's kind of a defensiveness in the moment, either fear about how it could be misused to hurt us or this sense that we need to go advocate for ourselves" (S. Harrington, personal communication, May 19, 2015). This ambivalence corresponds closely to the multiple uses to which boundary work is put, whether it be "expulsion" of rivals from a given intellectual territory, "expansion" into new territory, or "protection" of the discipline's "autonomy" from outside powers (Gieryn 1999, pp. 16-18).

However, Susanmarie largely chose not to define disciplinarity in this martial light. Rather, she associated it with "confidence": "But I think 3.0 is advocating from a much more confident position…so I guess I am talking myself into seeing that, yes, there is a greater sense of disciplinarity about this." In agreeing that the Statement is disciplinary, Susanmarie described what this disciplinarity meant in strikingly different terms from Dylan's; indeed, in some ways, she more closely resembled respondents who rejected the applicability of "disciplinarity" to the OS. Her definition was significantly more integrative than demarcative:

> There is a greater sense of disciplinarity about this, although…I think the statement is still positioning itself at the intersection of our discipline and all the other disciplines. So I think if Doug Downs or Liz Wardle..if you think about the Writing about Writing approach to defining—which isn't the only way to define disciplinarity in rhet/comp but if you just take that for a moment—I don't know if Doug or Liz would have come up with the same statement here. *So I think it's not so much an articulation of disciplinarity but an attempt to translate disciplinarity and connect our disciplinarity*…That it doesn't stop at saying what do we think our own programs are responsible for in the field but rather what's the relationship there and how do we think about matters of transfer and points of intellectual connection (S. Harrington, personal communication, May 19, 2015).

In distinguishing an "articulation of disciplinarity" from "an attempt to translate disciplinarity and connect disciplinarity," Susanmarie suggested that disciplinarity is heterogenous, not consensual. Contrasting articulation with translation and connection

suggests significantly different understandings of the exigences underlying disciplinarity. Articulation, on the one hand, is demarcative; by defining that which is disciplinary, one can clearly distinguish it from what is non-disciplinary (for example, science from non-science). Translation and connection, on the other hand, are de facto integrative, indicating the process of bringing disparate elements together. They suggest boundaries crossed, not boundaries maintained. Susanmarie's preference for words like "translate," "connect," "intersection," "relationship," and "transfer" to describe the disciplinary work of the Outcomes Statement indicates that, for her, the document is designed to communicate across cultural, disciplinary, departmental, and programmatic divides—the integrative motive underlying a boundary object (Wilson and Herndl 2007, p. 132).

Susanmarie identified one possible "articulation of disciplinarity" with Doug Downs and Elizabeth Wardle's influential Writing About Writing approach in Composition Studies. This approach introduces writing as an "object of study" and "rhetoric and composition [as] genuine research areas" in their own right (Downs and Wardle 2007, p. 553, 578). Revealingly, Susanmarie was not the only respondent to identify disciplinarity with the notion of writing as an object of study. Kathleen Blake Yancey, when asked about the Outcomes Statement's disciplinarity, asserted:

> [N]o, the Outcomes Statement is not a massive shift. It's something of a shift. But if this were a real shift, if this were the kind of shift you're asking about, we would see much more about writing as an object of study. We'd have to start taking on the issue of themed courses, for example, because that has been what is being taught right now. Writing isn't the only thing being taught. The theme is

> also being taught. We didn't take all of this on (K.B. Yancey, personal communication, August 17, 2015).

Kathleen described Composition Studies as undergoing a "disciplinary turn" in which writing is understood, moreso than ever before, as "a practice and an object of study." Her response above signaled that she did not see the Outcomes Statement as being a major contributor to this disciplinary turn. The turn was emphatically framed as a demarcative move: defining that which properly belongs to Composition Studies ("writing as a practice and an object of study") and that which lies outside ("themed courses"). However, Kathleen argued that the Outcomes Statement does not do this kind of boundary work. She frequently described the document in terms of consensus, cooperation, and accommodation: "a reform document"; "a compromise document"; "a consensus document"; "a gradient, not a rupture"; "it's not like a revolution, it's more like an evolution"; "a boundary object."

One reason for this accommodating approach, Kathleen claimed, is the audience for OS 3.0. Intriguingly, while Dylan implied that OS 3.0's audience is probably smaller than first envisioned, Kathleen asserted the opposite—that its audience extends across disciplines and beyond higher education faculty:

> …[T]he audience for this document is wider and broader than what was originally imagined, and even when originally imagined, the audience was pretty broad. Because we thought of it for example as a way of bringing high school and college teachers together, not to duplicate what each of us does but to think about how this could be used as a kind of bridging document between the two contexts.

> But it's interesting that not only can you—I've used it in any number of situations in talking to faculty in writing across the curriculum contexts. Because it gives faculty in those contexts some sense of what they might expect to be going on in first-year comp. And then we've got now where it's being used with students in classes. So the audiences are wide. We knew the audiences would be wide in the first iteration. But I think the audiences are wider than we expected. And they're going to have different levels of familiarity with the terminology (K.B. Yancey, personal communication, August 17, 2015).

What's intriguing about this statement is that it identifies OS 3.0 as integrative: bridging divides across the curriculum, between college and high school, teachers and their students, and so on. Yet Kathleen did not define this integrative exigence as *disciplinary*. There is a "consensus," a well-mapped identity with certain boundaries, associated with disciplinarity, and the Outcomes Statement problematizes this demarcation. Indeed, Kathleen pointed out that one part of the problem in calling the OS disciplinary is that it's hard to figure out where the discipline ends and something else begins. That is to say, it's hard to figure out *who belongs* in the discipline:

> I guess I think the document represents the consensus of the field—yeah. *But it's hard to know who the field is.* If by the field we mean all the people who teach writing, uh, probably. If we mean all the people who read 3C's, then I say probably. But it's not really designed just for readers of 3C's. And there are plenty of people who read 3C's who are not interested in the document because

> that's not the work that they engage with (K.B. Yancey, personal communication, August 27, 2015).

Efforts to set criteria on who constitutes the field—whether it's everyone who teaches writing or everyone who reads *College Composition and Communication*—fall short. Kathleen acknowledges here that, if we very broadly interpret the field to encompass all composition instructors, we cannot at the same time assume that they "discipline" the same way; they may not read "our" journals, and they certainly will not all subscribe to the "disciplinary turn" Kathleen references. Neither move (reading journals, subscribing to turns) is a litmus test for belonging to the discipline; as Kathleen suggests regarding the disciplinary turn, it may be influential enough now that "you couldn't turn it back," but "you could critique it" without placing yourself outside the discipline. In many ways, this admission that membership is ambiguous properly identifies the field of Composition Studies itself as a community of practice. Lave and Wenger (1991) have discussed the fluid, shifting boundaries of communities of practice, insisting that "[t]here is no place in a community of practice designated 'the periphery,' and, most emphatically, it has no single core or center" (36). Moreover, Wenger (1998) has stressed that establishing relationships is more important than establishing boundaries in constructing communities of practice: "homogeneity is neither a requirement for, nor the result of, the development of a community of practice" (p. 76). Rather, members of a community of practice find themselves in a place and "place" themselves within it; their engagement in practices shared by others is what defines them as members, not their ability to meet a defined set of formal criteria.

Bump's open struggle with the question of disciplinarity, then, is revealing in the way it illuminates the process of *placing* oneself and one's practices within a discipline. When Bump was asked the question, he first asked to see the article passage that the question drew from, stating that "I'm not familiar" with it. As he read through the passage, the pause in the conversation lasted more than a minute. Bump then asked me to repeat the question; once I had, he asked, "What does that mean, 'an increased assertiveness?'" I offered that "there's maybe a different sense of audience now, that this is a document for writing instructors of all stripes, so that there is not as big of a worry about making it accessible to the wider public." Bump's response is worth quoting at length:

> It's hard for me to make a call on that, because it's hard for me to not be me. And I think it's hard for any of us to not be us as we approach this, and go, "How accessible is this to people who aren't us?" We didn't shop it in that way. Because, well, first of all, how do you find them? How do you find those people who aren't part of the discipline? How do you go around and shop it to those folks? I mean, they're not organized in those places where you would shop it to them…So I don't know how to build an operating system for everyone who does this—well, that's not really what this is, an operating system. It's a list of values for everyone that is productive enough and yet loose enough. I think there's always going to be a quest to say, "How do we make this as available as possible for everyone, and how do we make this so it doesn't need translation?" (B. Halbritter, personal communication, May 30, 2015).

Like Susanmarie, Bump was interested in the relationship between "translation" and disciplinarity. Bump later hinted that the quest to do away with the need for translation was aspirational rather than practical, since "no matter at what level, [the OS] needs translation, it needs translation at the individual level, at the program level, at the institution level, at the peer institution level." For him, this was an inevitable consequence of difference, since "it's hard not to be me"; Bump insisted that being members of a disciplinary community of practice didn't preclude us from being ourselves, and this self-identity was rooted in place. (When one looked for "people who aren't part of the discipline," they couldn't be found, because "they're not organized in those places where you would shop it to them.") What Bump emphasized, above all, was that OS 3.0, as a disciplinary "list of values," must make sense across heterogeneous places and programs. In his own words, "You're going to have specific needs that this thing cannot address. Because it doesn't know you and it doesn't know your context. It doesn't know me and it doesn't know my context. We must bring that [our context] to this [the document]. We bring that into *dialogue* with this" (B. Halbritter, personal communication, May 30, 2015). For Bump, too, then, the integrative exigence of the document was paramount; the OS needed to be "productive enough yet loose enough" that a wide swathe of institutions could place themselves within "the larger set of values that govern what we see, or emerge from what we see, as the discipline" without losing the uniqueness of their own contexts and practices.

The next chapter reports on interview findings and future directions for qualitative and quantitative research into policy infrastructures. First, the chapter connects the four interview themes addressed above—*kairos*, composing and technology, genre, and

disciplinarity—to the research questions about writing policy infrastructures posed at the beginning of this study. I argue in these findings that the Task Force interviews offer valuable insights into how policy infrastructures can productively afford digital composing practices in writing programs. Second, Chapter Five concludes the dissertation by pointing to the need for more multiple-site empirical research, genealogical analysis, and theoretical critique of the role of writing policy infrastructures in rhetoric and composition.

CHAPTER FIVE: IMPLICATIONS AND FUTURE DIRECTIONS

Sometimes, you have a moment. In returning to Kathleen Blake Yancey's observation in this final chapter, I hope to emphasize its direct bearing upon the implications of the last chapter's Outcomes Statement Task Force interviews. This dissertation has sought to address whether and how writing policy infrastructures afford digital and multimodal composing practices within writing programs, and it has presented the OS 3.0 as a promising case study for answering this question. In Chapter Five, I conclude that writing policy infrastructures recognize the "multimodal, digitally composed" moment in which they reside. However, given the dizzying intensifications and accelerations of digital technology, this moment is constantly in flux; policy infrastructures must make use of particular kairotic tactics to "pursue" this elusive moment. Based on the Task Force interview findings, I suggest a number of these kairotic tactics for future policy infrastructures' use, tactics rooted in a disciplinary "ethics of ambiguity" (Bowker and Star, 1999, p. 313).

In Chapter One, I posed the following research questions:

1) Do writing policy statements, as disciplinary and cross-programmatic infrastructures, afford emerging digital and multimodal genres? If so, how?

2) What is the relationship between infrastructure and disciplinarity in Composition Studies?
3) How can disciplinary and programmatic infrastructures in Composition Studies cultivate an ethics of ambiguity, particularly concerning emerging digital and multimodal genres?

Using the findings drawn from OS Revision Task Force members' interviews, we can now begin to answer these questions.

5.1 How Do Writing Policy Infrastructures Afford Emerging Digital Genres?

1) *Infrastructure is kairotic.* To adapt Star and Ruhleder's observation, the question regarding infrastructure in relation to digital and multimodal composing practices is not so much "What is an infrastructure?" as "*When* is it?" (1996, p. 112). Infrastructures develop in tandem with, and indeed grow out of, a community's organized practices. Similarly, writing program policy infrastructures have a kairotic relationship with local digital and multimodal composing practices, a relationship that is necessarily both inclusive and exclusive. The infrastructural *kairos* is a tragic one (White 1987, p. 16), always speeding up to keep pace with new sociotechnical developments, yet at the same time slowing down to accommodate the *doxa*—the values, conventions, traditions, and prejudices—of the audiences and publics surrounding the document. Such a *kairos* is tragic because, as Eric Charles White claims, "the tragic recognition that speech can express only a partial truth means that on some other occasion a possibility presently denied will have in turn its moment of truth" (1987, p. 16). Infrastructural *kairos* is never a perfect fit with the time and place which it addresses, which is why it is in constant

need of revision, adaptation, and local experimentations or work-arounds. It is constantly faced with its own exclusions, silences, and conspicuous absences and constantly works to overcome these, with (at best) only partial success every time. If these exclusions become apparent enough to render the infrastructure visible, this can result in infrastructural breakdown (p. 113).

The WPA Outcomes Statement demonstrates this tragic *kairos* in supporting digital genres. Digital genres are supported implicitly, but not explicitly, for fear of the document alternately "moving too fast" or "going out of date." In the OS, digital genres remain, as Alexander and Rhodes have expressed, "genres that do not yet even have names" (45). While OS 3.0's discussion of genre in the "Knowledge of Conventions" section identifies lab reports, notebooks, discussion board exchanges and so on as genres, emerging digital genres are not named because, as Beth Brunk-Chavez pointed out, "in two years, who knows" if they'll still be around? Given the document's reticence, how, then, are digital genres afforded, instead of continuing to be displaced as conspicuous absences, residual categories? The answer to this question lies in OS 3.0's role as a *boundary infrastructure.*

2) *Boundary infrastructures accommodate differences through the negotiation of multiple and simultaneous boundary objects.* According to Bowker and Star, boundary infrastructures

> …by and large do the work that is required to keep things moving along. Because they deal in regimes and networks of boundary objects (and not of unitary, well-defined objects), boundary infrastructures have sufficient play to allow for local variation together with sufficient consistent structure to allow for the full array of

> bureaucratic tools (forms, statistics, and so forth) to be applied. Even the most regimented infrastructure is ineluctably also local; if work-arounds are needed, they will be put into place (313-314).

As opposed to traditional understandings of infrastructures, which tend to advocate the "[t]he chimera of a totally unified and universally applicable information system" (p. 313) or the standardization of local practices, boundary infrastructures explicitly acknowledge the advantages of "local variation," since work-arounds, adaptations and innovations are inevitably necessary in any infrastructure of sufficient longevity and scope. Accordingly, boundary infrastructures will tend not to specify or micromanage how local sites operate within the infrastructure, instead embracing the affordances of multiplicity and marginality.

The CWPA Outcomes Statement is one such boundary infrastructure, navigating and overseeing multiple boundary objects. As we have discussed before, boundary objects are objects that afford cooperation without consensus; they are strictly defined within a particular community of practice, but loosely defined across different communities of practice. Similarly, OS 3.0 allows certain terms and concepts—among them, composing, writing, technologies, genres, conventions—and disciplinarity—to encompass many different things. To reiterate one instance, Jody Shipka (2011) has described how the word "composing" can include not only "digital texts, such as digital audio, video, and Websites," but also "writing on shirts, purses and shoes, repurposing games, staging live performances, producing complex multipart rhetorical events, or asking students to account for the choices they make while designing linear, thesis-

driven, print-based texts" (p. 9). Different communities of practice (e.g., writing programs or departmental associations)—some emphasizing print-based practices, others digital, others visual or aural—can all find their practices supported by the notion of "composing" as boundary object found within OS 3.0. Understanding "genre" as a boundary object, along these same lines, guarantees that is not tied to the specificity of static forms, but instead supports various recurring practices across occasions, disciplines, communities, technologies, media, and so on. While it may be identified with some practices more readily than others within any particular community, OS 3.0 provides the loose definition that allows for ongoing organizational cooperation—even in the face of dissensus.

5.2 What is the Relationship Between Infrastructure and Disciplinarity?

3) *Infrastructures must, at times, negotiate the tension between boundary work and boundary crossing, i.e., its demarcative and integrative exigencies.* The two are not necessarily mutually exclusive; in a boundary object, paradoxically enough, demarcative and integrative exigencies can co-exist. This co-existence owes to the ability of a boundary object to simultaneously be well-defined (within a community of practice) and loosely defined (across communities of practice). In the WPA Outcomes Statement, similarly, we find both demarcative and integrative exigencies. The OS wants to communicate disciplinary "assertiveness," confidently arguing that its understanding of outcomes is founded on decades of Composition Studies expertise and research, and at the same time communicate cross-disciplinary and cross-institutional "flexibility," acknowledging that it is meant to be adapted to local use and is addressed to audiences who have "expertise in other disciplines" or "contingent and/or novice instructors with

disparate beliefs and instructional priorities, too many of whom are still without much formal professional development in writing studies or teaching" (Dryer et al., 2014, p. 139). In many ways, it communicates effectively on both levels. This is because, as boundary infrastructure, it offers both "sufficient play" and "sufficient consistent structure."

However, there are also times when an infrastructure's demarcative and integrative exigencies, its boundary work and its boundary crossing, are in tacit or open conflict. In the case of OS 3.0, one such conflict lies in the question of who has the credibility to teach, design, and administer first-year composition and other writing courses. On the one hand, the document's emphasis on disciplinary expertise suggests that only those well-versed in composition research and pedagogy should be involved in such responsibilities; on the other hand, its emphasis on local flexibility and adaptation underscores the reality that the document must address multiple communities of practice. Given OS 3.0's acknowledgement that several instructors "are still without much formal professional development in writing studies or teaching," the document's disciplinary "assertiveness" leaves open to question the positioning of the "faculty with expertise in other disciplines" and "contingent and/or novice instructors" being addressed. As noted below, an open, heterogeneous conception of disciplinary enculturation can help to ease these boundary tensions.

4) *Disciplinarity and infrastructure both persist through enculturation*. One characteristic of an infrastructure, Star and Ruhleder note, is that it is "learned as part of membership" (1996, p. 113). In their interviews, several members of the Task Force

indicated that, in effect, they saw the OS as such an infrastructure. Dylan, for example, noted that disciplinary expertise is something "the writing statement both calls on others to recognize but, not to put too fine a point on it, also demands of ourselves as a practice. If you're not familiar with [Composition Studies'] body of work, then you should not be directing a writing program" (D. Dryer, personal communication, April 27, 2015). Bump, too, acknowledged that "there are folks out there who continue to teach these courses who are probably not disciplinarily trained in what we do." Faced with this reality, the OS provides "a list of values for everyone that is productive enough and yet loose enough" (B. Halbritter, personal communication, May 30, 2015). (This description of the OS corresponds well with the definition of boundary infrastructure we've provided: sufficient consistent structure, yet also sufficient play.) The Task Force participants suggested, as well, that they felt a responsibility to extend membership to the "faculty with expertise in other disciplines" and "contingent and/or novice instructors" they were addressing. As Dylan et al observe in "Revising FYC Outcomes,"

> Statement 3.0 thus offers writing programs considerably more descriptive language in many of its sub-goals, as well as composition-specific definitions of the Outcomes themselves. While some may find that this has come at some cost to the user-friendliness of the original wording, the Task Force believes it is a necessary compromise that also will benefit many composition instructors who need more explicit unpacking of the assumptions operating in the Statement (p. 139).

In other words, as is the case with any good boundary object (or infrastructure), OS 3.0 provides a shared vocabulary to afford the work of multiple participants hailing from multiple communities of practice.

Accordingly, the "contingent and/or novice instructors" addressed by OS 3.0 can be fairly described as "legitimate peripheral participants" within the field of rhetoric and composition. Lave and Wenger have identified legitimate peripheral participation as "the process by which newcomers become part of a community of practice" (1991, p. 29). They are consistently careful to describe such newcomers as "legitimate" participants, arguing that peripherality is "a positive term": "peripherality suggests that there are multiple, varied, more- or less-engaged-and-inclusive ways of being located in the fields of participation defined by a community…peripherality, when it is enabled, suggests an opening, a way of gaining access to sources for understanding through growing involvement" (pp. 35-37). Bowker and Star effectively subscribe to this notion of membership through learning and practice, but they also point out that membership should not be treated as a one-way assimilative process. They emphasize the fact of marginality, "human membership in more than one community of practice." Marginality entails that new members of a community are not *tabula rasa* or "passive dupes," but bring their own histories from previous communities into their present struggles for membership: "Strangers are those who come and stay for a while, long enough so that membership becomes a troubling issue—they are not just nomads passing through, but people who sort of belong and sort of do not" (p. 302). Novice and/or contingent instructors, too, can be described as "marginal members," or "sort of" members.

Accordingly, in the spirit of disciplinary enculturation, writing program infrastructures should work to include and recognize these marginal members whenever possible as legitimate peripheral participants. In particular, any disciplinary boundary work which contests these members' collective credibility may prove greatly counterproductive. This has implications for the infrastructural affordance of digital genres, as we will discuss shortly; as the digital increasingly becomes disciplined, the enculturation of novice or contingent instructors into emergent composing practices will only grow in importance.

5.3 How can Writing Program Infrastructures Cultivate an Ethics of Ambiguity?

5) *Grow boundary objects*. Bowker and Star have castigated schools as historically "lousy places to grow boundary objects because they both strip away the ambiguity of the objects of learning and impose or ignore membership categories" (1999, pp. 305-306). OS 3.0, on the other hand—both as a document and as a process of collective revision—worked to preserve this ambiguity and respect membership categories as fluid. Its negotiation of *composing, writing, technologies, genre,* and *disciplinarity* as boundary objects afforded multiple practices and avenues for achieving desired outcomes; indeed, the outcomes themselves qualified as boundary objects. In addition, it makes room for different "members" (technology-rich programs, programs with digital access issues, WPAs, veteran composition instructors, faculty in different disciplines, novice and contingent instructors, etc.) to recognize themselves in the outcomes and make the outcomes work for their unique contexts. In allowing for cooperation without consensus, policy infrastructures' use of boundary objects constitutes "ambiguity as a disciplinary access point" (Selber, 2009, p. 432). Future policy

infrastructures may successfully grow "boundary objects" out of other terms (whether they be *multilinguilism*, *Writing Across the Curriculum*, *Writing About Writing*, *transfer, service learning*, *multimodal assessment*, etc.) as the field continues to wrestle with their ambiguity.

6) Build capacities for adaptation and revision into the infrastructure. As Star and Ruhleder have argued, "Because infrastructure is big, layered, and complex, and because it means different things locally, it is never changed from above. Changes take time and negotiation, and adjustment with other aspects of the systems involved" (Bowker and Star, 1999, p. 35). The WPA OS is a "living document," its various crafters have insisted since its 1999 inception; it is going to be changed. Such change, in addition, will have to happen from the bottom up. In his interview, Dylan noted that even OS 3.0, whose drafting relied on extensive discipline-wide feedback from informal contacts, focus groups, workshops, conferences, and a formal survey, had to struggle with the perception that it was a "pronouncement, a mandate, something handed down from the executive committee, even though we say we're looking for outcomes and not standards" (D. Dryer, personal communication, April 27, 2015). Without an infrastructure's responsiveness to members, such perceptions only increase, and the infrastructure will eventually face overwhelming resistance and breakdown if it takes minimal or no account of members' real practices. Capacities for adaptation and revision, then, help keep the infrastructure kairotic. The OS's emergence from, and persistent engagement with, WPA-L discussions is one example of making the infrastructure responsive to member input and critique. Its dependence on disciplinary forums to effect revision is another. There are various mechanisms the CWPA could employ to extend the document's

reponsiveness. First, although the first Outcomes Collective developed organically, the last two Outcomes Statement Task Forces were appointed. In an effort to return to this organic development, the Outcomes Collective could become a standing institutional body with rotating membership, such as a SIG at 4C's. This would be a start to ensuring that regular and varied disciplinary input is collected from year to year. Second, future revision task forces could be elected from this SIG or another body at periodic junctures (say, every six to eight years, the current rate of OS revision). These task forces would "shop" drafts at workshops, conferences, and other forums, just as the OS 3.0 Revision Task Force did; it might also make use of other bottom-up practices, such as a shared wiki draft of the OS, open to any CWPA member, or a website collecting different local adaptations of the OS. Finally, along these lines, the recommendations included under Implication #7 may also prove useful in embedding adaptation and revision into infrastructure.

7) *Preserve and perpetuate the infrastructure's visibility, at least in part.* This can help to stave off the impression, or temptation, of standardization. Dylan lamented the fact that the OS 3.0 was still being seen as "prescriptive." In some senses, this is an inevitable consequence of naturalization: infrastructure becomes taken-for-granted and, therefore, left unquestioned and unchallenged. However, persistent efforts to make it visible—to expose its construction—can usefully slow this process and let ambiguity continue its work.

There are a number of opportunities for accomplishing this goal; several of them are included in the 2014 Dryer et al article. One is to document and celebrate local

adaptations and workarounds. As Dryer et al suggest, such documentation might entail "provid[ing] a website where WPAs can upload local versions of OS 3.0—both to help others see how local institutions have adopted and adapted it and to provide a record of the kinds of uses we have collectively made of the WPA OS" (p. 135). Jeff Rice has critiqued WPA scholarship's insufficient past evidence of this documentation, rendering the OS's generality politically suspect as opposed to productively ambiguous:

> An understandable response to that critique might be that this is what the Outcomes Statement allows for—generality that can be adapted to specific institutions. But the lack of specificity does quite the opposite; it encourages status quo work because variation is never described or accounted for. Faced with an ideology of generality, a reader of…the Outcomes Statement itself can easily be interpellated as someone who should do general work. That reliance on general work, that dependence on the familiar, is the core of all conservatism. Generality is the basis of the rejection of the 'unusual,' and the legitimacy of the 'one best way' for standardized production. The minute we introduce specificity, we place the efficiency prompted by generality under question (Rice, 2009, p. 12).

Rice's point is well taken: variation needs to be described and accounted for, and tactical introductions of specificity into the discourse surrounding the Outcomes Statement can help to "push the envelope" in fruitful ways, showing what programmatic innovations (in terms of digital composing or otherwise) are possible. When an infrastructure is even partially visible or "audible" in this way, its "silences" and "conspicuous absences" can be more readily identified and challenged.

Another opportunity to preserve the infrastructure's visibility is to make its invisible workers visible through professional development and training. In the case of OS 3.0, some of the principal invisible workers are the "novice and contingent instructors" identified as the Statement's primary audience, which has little-explored consequences for the promotion of digital pedagogy. Research has demonstrated that writing teachers are often left to their own devices when it comes to professional development and training in emerging composing technologies, resulting in uneven implementation of the multimodal outcomes assessment practices encouraged by national policy statements. Evidence for this can be found in Anderson et al's "Integrating Multimodality into Composition Curricula" (2006) and Murray et al's "The New Work of Assessment: Evaluating Multimodal Compositions" (2009). As Anderson et al points out, 100% of instructors surveyed indicated that they taught themselves the technologies needed to teach multimodal composition (p. 73), and only 36% indicated that "their institution or department conducted 'somewhat effective' technology training programs" (p. 74). Murray et al, similarly, report that "53% of instructors responded that they did not feel their writing program had adequately prepared or trained them to assess multimodal projects." Novice and contingent instructors, often lacking the resources accorded full-time faculty, can be particularly hard hit by this dearth of training. Right now, the invisibility of their work is, perhaps, rendering something else invisible as well: why the need for professional development is so high yet goes unheeded, why national calls to integrate multimodality into local curricula meet with mixed success.

If the CWPA Outcomes Statement is addressed, as it acknowledges, to "novice and contingent instructors," then a greater effort to promote and subsidize professional

development opportunities is needed to provide these instructors with the skills to teach digital and multimodal composing, as well as with socially just opportunities for disciplinary and professional advancement. The difficulties that composition instructors have in teaching and evaluating multimodal compositions should be placed alongside recent meditations on the need to include contingent faculty in disciplinary, programmatic and digital pedagogical conversations (Penrose, 2012; Wardle, 2013; Blair, 2014; McGrath and Guglielmo, 2014). As long as contingent faculty are excluded from these conversations, our demarcative impulses will prove counterproductive; our infrastructures will continue to promote multimodality within the discipline while inadvertently excluding or undercutting its practice in first-year composition.

Finally, the infrastructure can remain visible by being introduced into new contexts and communities of practice. Possible new contexts for OS 3.0 might include its study and use in writing courses beyond first-year composition (such as advanced writing, professional writing and technical writing), its potential "translation" into established or fledgling WAC/WID initiatives, or putting it into dialogue with secondary education institutions, writing centers, community literacy efforts, service learning and internship programs, second language writers, and so on. To be sure, such dialogues are already ongoing (Harrington et al 2005; Behm et al 2013). However, focusing in particular on how the affordance of digital genres affects or initiates these dialogues (by furthering Communication Across the Curriculum efforts, for example) might be particularly fruitful.

In the end, perhaps the interviews' most urgent insights lay in their reminder that infrastructures do not belong to their "creators"; in order to persist as ecologies, they must afford the practices of their "users." As Task Force members insisted, the CWPA OS could not properly exist without being responsive to the needs of writing program administrators, faculty, and students—those whose relations bring the infrastructure into being in the first place. Thus, the test of OS 3.0, for now, is how well it affords the "multimodal, digitally composed world" it addresses. Susan Leigh Star's perennial question for infrastructures and systems everywhere—*Cui bono?*—is worth bearing in mind as the 2014 revision offers its transparency and scope across writing programs. In earlier iterations of the OS, the implicit, unintentional support for "traditional, paper-based, school writing" may well have benefited teachers and administrators averse to institutional change, but it did not benefit students in a digitally composed world. If OS 3.0 works as intended, it should reverse this calculus.

5.4 Future Directions for Research

> *There is no such thing as 'context.' The conditional elements of the situation need to be specified in the analysis of the situation itself as they are constitutive of it, not merely surrounding it or framing it or contributing to it. They are it. Regardless of whether some actors might construe them as local or global, internal or external, close-in or far away, or whatever, the fundamental question is: 'How do these conditions appear—make themselves felt as consequential—as integral parts of the empirical situation under examination?' (Clarke, 2015, p. 98)*

Infrastructure, as Star and Ruhleder observed twenty years ago, cannot be limited to a "single event or one-site practice." For this reason, the case study discussed above should be considered the first step in a much wider project. Its aspirations are matched by its limitations, and its limitations are clear: by focusing on the construction of a policy

infrastructure, it leaves open to question the subsequent uptake or use by communities of practice. Indeed, although I earlier advocated for infrastructural inversion's capacity to integrate local and global scales of investigation, I confess that, in the end, the ethnography of infrastructure has eluded me, too; there are many "localities" and many "conditional elements of the situation" left unexplored by this analysis, the policy infrastructure's broader programmatic effects chief among them. In spite of these limitations, however, I believe that this case study offers a guidepost for future research. Too often, infrastructure—particularly, for our case, policy infrastructure—is seen as monolithic and homogeneous. By revealing the ethics of ambiguity embedded in the boundary objects at play in the OS 3.0, this dissertation opens the door to exploring how this ethics of ambiguity is taken up by participating writing programs (not to mention whether it is taken up at all).

To aid this wider project along, some future directions for research are proposed below. First, more empirical investigation of the impact of national policy documents on individual writing programs is needed. In its genealogical focus on the construction of the OS 3.0 as a policy infrastructure, this dissertation lays the groundwork for considering how various programs are making use of 3.0's revised understandings of composing, digital technologies, and genre. If, for example, the CWPA as an organization and WPAs as individuals heed Dryer et al's call to create and contribute to "a website where WPAs can upload local versions of Statement 3.0—both to help others see how local institutions have adopted and adapted it and to provide a kind of record of the kinds of uses we have collectively made of the WPA OS," this would provide a rich resource for purposive sampling of such uses (2014, p. 135). In addition, a quantitative study of how many

writing programs have adopted the OS 3.0 and in what ways, possibly designed along the lines of Emily Isaacs and Melinda Knights's "Assessing the Impact of the Outcomes Statement" (2013), might help to determine if the OS 3.0's impact is greater or more readily evident than its predecessors. Further qualitative investigation into whether and how the OS is incorporated into programs' professional development of beginning and contingent instructors could suggest 3.0's potential for sustained impact.

Second, case studies uncovering the genealogy of other national policy statements dealing with digital composing, multimodality, multiple literacies, and so on would provide a more detailed picture of how successful (or unsuccessful) policy infrastructures are constructed. This study does not pretend to stand in for all national writing policy infrastructures. As Bowker and Star admit, using the metaphor of filiation to describe the "threads" of categorical work that tie categories to people, infrastructures have different affiliative textures, whether these textures involve the looseness or tightness of categories, the scope, the control of filiation, the ecology of classification, or the reversibility or irreversibility of categories (1999, pp. 314-317). These affiliative textures, in turn, play a major role in how an infrastructure is used by communities of practice. For example, in terms of control, Patricia Ericsson (2003a) has suggested that the 1996 National Council of Teachers of English / International Reading Association (NCTE/IRA) Standards for the English Language Arts, as a top-down, government-supported policy project, met with considerable resistance within and without the education profession, whereas the Outcomes Statement, as a bottom-up "grassroots effort" stemming from an informally organized Outcomes Group, was able to avoid much public negative reaction (pp. 26, 146-148). Infrastructural inversion of other national

writing policy statements could shed light on how much they are informed by an ethics of ambiguity, or conversely, an ethics of standardization. To take one instance, considering how the National Writing Project's Multimodal Assessment Project presents a language of assessment "domains" for multimodal composing, in "response to the ways in which writing assessment has far too often been associated with timed, contextualized exams" could provide an instructive comparison to the language of "outcomes," or even "standards," informing other policy infrastructures (Eidman-Aadahl et al., 2013).

Finally, we need to return, persistently, to Bowker and Star's warning: "Each standard and each category valorizes some point of view and silences another. This is not inherently a bad thing—indeed it is inescapable. But it *is* an ethical choice, and as such it is dangerous" (p. 5). Inevitably, any rhetorical intervention entails exclusions, and national writing policy infrastructures—as well as, more pointedly, this dissertation itself—should be no exception. These "residual silences" and "conspicuous absences" should be conscientiously unearthed and critiqued by future research. In terms of the OS 3.0, the Task Force participants themselves have identified certain "conspicuous absences" in the document, such as aural composing, and expressed the hope that future users will address these absences kairotically (Bump Halbritter, personal communication, May 30, 2015). The OS has also encountered a number of productive critiques in the past, involving such concerns as the lack of address to students themselves (Elbow 2005), the treatment of technology as an instrumental "tool" (Callaway 2013), and the insufficient attention to second language writers in the document (Matsuda and Skinnell 2013), among others. Research that explores whether and how such absences persist in OS 3.0 and other national writing policy statements, as well as how these absences affect

participating writing programs, is urgently needed to continue answering Star's question for us, as researchers: "*Cui bono?* Who is doing the dishes? Where is the garbage going? What is the material basis for practice? Who owns the means of knowledge production?" (1995, p. 3). In the case of the Outcomes Statement, the question becomes: whom does this document benefit? If it does not, in the end, afford the real (present and future) composing lives of students, it is running contrary to its mission.

Continuing to ask and answer this question can ensure that, in this moment of genre change Kathleen Blake Yancey has identified for us, we use the dangerous powers of classification and categorization wisely. It can ensure that our infrastructures remain receptive to this moment and moments to come, rather than unwittingly preparing our students for a future past.

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APPENDICES

Appendix A: The WPA Outcomes Statement for First-Year Composition 3.0 (adopted 17 July 2014)

Introduction

This Statement identifies outcomes for first-year composition programs in U.S. postsecondary education. It describes the writing knowledge, practices, and attitudes that undergraduate students develop in first-year composition, which at most schools is a required general education course or sequence of courses. This Statement therefore attempts to both represent and regularize writing programs' priorities for first-year composition, which often takes the form of one or more required general education courses. To this end it is not merely a compilation or summary of what currently takes place. Rather, this Statement articulates what composition teachers nationwide have learned from practice, research, and theory.[1] It intentionally defines only "outcomes," or types of results, and not "standards," or precise levels of achievement. The setting of standards to measure students' achievement of these Outcomes has deliberately been left to local writing programs and their institutions.

In this Statement "composing" refers broadly to complex writing processes that are increasingly reliant on the use of digital technologies. Writers also attend to elements of design, incorporating images and graphical elements into texts intended for screens as well as printed pages. Writers' composing activities have always been shaped by the technologies available to them, and digital technologies are changing writers' relationships to their texts and audiences in evolving ways.

These outcomes are supported by a large body of research demonstrating that the process of learning to write in any medium is complex: it is both individual and social and demands continued practice and informed guidance. Programmatic decisions about helping students demonstrate these outcomes should be informed by an understanding of this research.

As students move beyond first-year composition, their writing abilities do not merely improve. Rather, their abilities will diversify along disciplinary, professional, and civic lines as these writers move into new settings where expected outcomes expand, multiply, and diverge. Therefore, this document advises faculty in all disciplines about how to help students build on what they learn in introductory writing courses.

Rhetorical Knowledge

Rhetorical knowledge is the ability to analyze contexts and audiences and then to act on that analysis in comprehending and creating texts. Rhetorical knowledge is the basis of

composing. Writers develop rhetorical knowledge by negotiating purpose, audience, context, and conventions as they compose a variety of texts for different situations.

By the end of first-year composition, students should

- Learn and use key rhetorical concepts through analyzing and composing a variety of texts
- Gain experience reading and composing in several genres to understand how genre conventions shape and are shaped by readers' and writers' practices and purposes
- Develop facility in responding to a variety of situations and contexts calling for purposeful shifts in voice, tone, level of formality, design, medium, and/or structure
- Understand and use a variety of technologies to address a range of audiences
- Match the capacities of different environments (e.g., print and electronic) to varying rhetorical situations

Faculty in all programs and departments can build on this preparation by helping students learn

- The expectations of readers in their fields
- The main features of genres in their fields
- The main purposes of composing in their fields

Critical Thinking, Reading, and Composing

Critical thinking is the ability to analyze, synthesize, interpret, and evaluate ideas, information, situations, and texts. When writers think critically about the materials they use—whether print texts, photographs, data sets, videos, or other materials—they separate assertion from evidence, evaluate sources and evidence, recognize and evaluate underlying assumptions, read across texts for connections and patterns, identify and evaluate chains of reasoning, and compose appropriately qualified and developed claims and generalizations. These practices are foundational for advanced academic writing.

By the end of first-year composition, students should

- Use composing and reading for inquiry, learning, critical thinking, and communicating in various rhetorical contexts
- Read a diverse range of texts, attending especially to relationships between assertion and evidence, to patterns of organization, to the interplay between verbal and nonverbal elements, and to how these features function for different audiences and situations
- Locate and evaluate (for credibility, sufficiency, accuracy, timeliness, bias and so on) primary and secondary research materials, including journal articles and

essays, books, scholarly and professionally established and maintained databases or archives, and informal electronic networks and internet sources
- Use strategies—such as interpretation, synthesis, response, critique, and design/redesign—to compose texts that integrate the writer's ideas with those from appropriate sources

Faculty in all programs and departments can build on this preparation by helping students learn
- The kinds of critical thinking important in their disciplines
- The kinds of questions, problems, and evidence that define their disciplines
- Strategies for reading a range of texts in their fields

Processes

Writers use multiple strategies, or *composing processes*,to conceptualize, develop, and finalize projects. Composing processes are seldom linear: a writer may research a topic before drafting, then conduct additional research while revising or after consulting a colleague. Composing processes are also flexible: successful writers can adapt their composing processes to different contexts and occasions.

By the end of first-year composition, students should
- Develop a writing project through multiple drafts
- Develop flexible strategies for reading, drafting, reviewing, collaborating, revising, rewriting, rereading, and editing
- Use composing processes and tools as a means to discover and reconsider ideas
- Experience the collaborative and social aspects of writing processes
- Learn to give and to act on productive feedback to works in progress
- Adapt composing processes for a variety of technologies and modalities
- Reflect on the development of composing practices and how those practices influence their work

Faculty in all programs and departments can build on this preparation by helping students learn
- To employ the methods and technologies commonly used for research and communication within their fields
- To develop projects using the characteristic processes of their fields
- To review work-in-progress for the purpose of developing ideas before surface-level editing
- To participate effectively in collaborative processes typical of their field

Knowledge of Conventions

Conventions are the formal rules and informal guidelines that define genres, and in so doing, shape readers' and writers' perceptions of correctness or appropriateness. Most obviously, conventions govern such things as mechanics, usage, spelling, and citation practices. But they also influence content, style, organization, graphics, and document design.

Conventions arise from a history of use and facilitate reading by invoking common expectations between writers and readers. These expectations are not universal; they vary by genre (conventions for lab notebooks and discussion-board exchanges differ), by discipline (conventional moves in literature reviews in Psychology differ from those in English), and by occasion (meeting minutes and executive summaries use different registers). A writer's grasp of conventions in one context does not mean a firm grasp in another. Successful writers understand, analyze, and negotiate conventions for purpose, audience, and genre, understanding that genres evolve in response to changes in material conditions and composing technologies and attending carefully to emergent conventions.

By the end of first-year composition, students should

- Develop knowledge of linguistic structures, including grammar, punctuation, and spelling, through practice in composing and revising
- Understand why genre conventions for structure, paragraphing, tone, and mechanics vary
- Gain experience negotiating variations in genre conventions
- Learn common formats and/or design features for different kinds of texts
- Explore the concepts of intellectual property (such as fair use and copyright) that motivate documentation conventions
- Practice applying citation conventions systematically in their own work

Faculty in all programs and departments can build on this preparation by helping students learn

- The reasons behind conventions of usage, specialized vocabulary, format, and citation systems in their fields or disciplines
- Strategies for controlling conventions in their fields or disciplines
- Factors that influence the ways work is designed, documented, and disseminated in their fields
- Ways to make informed decisions about intellectual property issues connected to common genres and modalities in their fields.

Appendix B: WPA Outcomes Statement for First-Year Composition 1.0 and 2.0 (adopted April 2000; amended July 2008)

Introduction

This statement describes the common knowledge, skills, and attitudes sought by first-year composition programs in American postsecondary education. To some extent, we seek to regularize what can be expected to be taught in first-year composition; to this end the document is not merely a compilation or summary of what currently takes place. Rather, the following statement articulates what composition teachers nationwide have learned from practice, research, and theory. This document intentionally defines only "outcomes," or types of results, and not "standards," or precise levels of achievement. The setting of standards should be left to specific institutions or specific groups of institutions.

Learning to write is a complex process, both individual and social, that takes place over time with continued practice and informed guidance. Therefore, it is important that teachers, administrators, and a concerned public do not imagine that these outcomes can be taught in reduced or simple ways. Helping students demonstrate these outcomes requires expert understanding of how students actually learn to write. For this reason we expect the primary audience for this document to be well-prepared college writing teachers and college writing program administrators. In some places, we have chosen to write in their professional language. Among such readers, terms such as "rhetorical" and "genre" convey a rich meaning that is not easily simplified. While we have also aimed at writing a document that the general public can understand, in limited cases we have aimed first at communicating effectively with expert writing teachers and writing program administrators. These statements describe only what we expect to find at the end of first-year composition, at most schools a required general education course or sequence of courses. As writers move beyond first-year composition, their writing abilities do not merely improve. Rather, students' abilities not only diversify along disciplinary and professional lines but also move into whole new levels where expected outcomes expand, multiply, and diverge. **For this reason, each statement of outcomes for first-year composition is followed by suggestions for further work** that builds on these outcomes.

Rhetorical Knowledge

By the end of first year composition, students should

- Focus on a purpose
- Respond to the needs of different audiences
- Respond appropriately to different kinds of rhetorical situations

• Use conventions of format and structure appropriate to the rhetorical situation
• Adopt appropriate voice, tone, and level of formality
• Understand how genres shape reading and writing
• Write in several genres

Faculty in all programs and departments can build on this preparation by helping students learn
• The main features of writing in their fields
• The main uses of writing in their fields
• The expectations of readers in their fields

Critical Thinking, Reading, and Writing

By the end of first year composition, students should
• Use writing and reading for inquiry, learning, thinking, and communicating
• Understand a writing assignment as a series of tasks, including finding, evaluating, analyzing, and synthesizing appropriate primary and secondary sources
• Integrate their own ideas with those of others
• Understand the relationships among language, knowledge, and power

Faculty in all programs and departments can build on this preparation by helping students learn
• The uses of writing as a critical thinking method
• The interactions among critical thinking, critical reading, and writing
• The relationships among language, knowledge, and power in their fields

Processes

By the end of first year composition, students should
• Be aware that it usually takes multiple drafts to create and complete a successful text
• Develop flexible strategies for generating, revising, editing, and proof-reading
• Understand writing as an open process that permits writers to use later invention and rethinking to revise their work
• Understand the collaborative and social aspects of writing processes
• Learn to critique their own and others' works
• Learn to balance the advantages of relying on others with the responsibility of doing their part
• Use a variety of technologies to address a range of audiences

Faculty in all programs and departments can build on this preparation by helping students learn
• To build final results in stages

• To review work-in-progress in collaborative peer groups for purposes other than editing
• To save extensive editing for later parts of the writing process
• To apply the technologies commonly used to research and communicate within their fields

Knowledge of Conventions

By the end of first year composition, students should
• Learn common formats for different kinds of texts
• Develop knowledge of genre conventions ranging from structure and paragraphing to tone and mechanics
• Practice appropriate means of documenting their work
• Control such surface features as syntax, grammar, punctuation, and spelling

Faculty in all programs and departments can build on this preparation by helping students learn
• The conventions of usage, specialized vocabulary, format, and documentation in their fields
• Strategies through which better control of conventions can be achieved

Composing in Electronic Environments

As has become clear over the last twenty years, writing in the 21st century involves the use of digital technologies for several purposes, from drafting to peer reviewing to editing. Therefore, although the kinds of composing processes and texts expected from students vary across programs and institutions, there are nonetheless common expectations.

By the end of first-year composition, students should:
• Use electronic environments for drafting, reviewing, revising, editing, and sharing texts
• Locate, evaluate, organize, and use research material collected from electronic sources, including scholarly library databases; other official databases (e.g., federal government databases); and informal electronic networks and internet sources
• Understand and exploit the differences in the rhetorical strategies and in the affordances available for both print and electronic composing processes and texts

Faculty in all programs and departments can build on this preparation by helping students learn
• How to engage in the electronic research and composing processes common in their fields
• How to disseminate texts in both print and electronic forms in their fields

Appendix C: Sample Interview Questions for OS 3.0 Task Force Case Study

Interview Questions:

History

1) Can you tell me a little about how the Outcomes Statement Revision Task Force drew from past policy statements or emerged alongside current policy statements? I'm thinking particularly of the footnote on the first page: "This Statement is aligned with the *Framework for Success in Postsecondary Writing*."

Digital Technologies and Composing

2) The *WPA Journal* article discusses OS 3.0's "explicit definition of composing" as one of its key changes to the document. How do you think this explicit definition of composing changes the way the WPA OS can be used?

3) The article also discusses multiple sources of disciplinary input the Task Force received before and during the drafting process. One kind of input described is discussion of different terminology and practices associated with digital composing (such as *digital literacy*, *new media*, *visual rhetoric*, and *multimodality*). Can you say more about how these discussions informed the terms and practices incorporated into the final draft OS?

Genre

4) Statement 3.0 also includes particular attention to genre, particularly in the "Rhetorical Knowledge" and "Conventions" sections of the OS. In your view, has the understanding of genre changed from the previous two statements?

- (If so) how?
- (If not) why was the language changed?

Disciplinarity

5) According to the *WPA* article, "the language of the revision itself signals a different stance to our stakeholders, most explicitly by its increased assertiveness about the need to base programmatic decisions on disciplinary knowledge" (139).

- Is this your understanding as well?
- (If so) Do you think this different stance changes the way the OS is used? How?

VITA

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ELLERY SILLS

EDUCATION

Ph.D. in English, Purdue University, June 2016.
Primary Area: Rhetoric and Composition.
Secondary Areas: Curriculum Development; Public Rhetoric.
Dissertation: *Disciplining the Digital: Infrastructures for Emerging Genres in Rhetoric and Composition.*
Committee: Patricia Sullivan (Chair), Thomas Rickert, Jennifer Bay, Samantha Blackmon.

Degrees Completed
M.A. in Teaching of English (Grades 6-12), Lewis and Clark College, December 2004.
B.A. in English, Grinnell College, May 2003.

DISSERTATION

My dissertation argues that components of writing programs' organization (sometimes labeled as their infrastructures) play a major role in affording and sustaining emerging digital genres. The accelerating transformations and instabilities of emergent digital genres have posed a challenge for contemporary writing programs, and this challenge has illuminated the relationship between institutional infrastructure and genre change. In the dissertation I examine writing program structures nationally by interrogating interrogate the changes made to a specific institutional infrastructure, the newly revised CWPA Outcomes Statement (OS 3.0). I argue that the revised OS embeds fluidity and dynamism into its understanding of composing and genre, thereby better supporting digital genres across the higher education curriculum.

COLLEGE TEACHING EXPERIENCE

Advanced Composition (English 304), Purdue University, 1 section, Aug.-Dec. 2015.
Designed curriculum for an upper-level composition course with emphasis on revision, argument, and academic, professional, and technical writing within students' disciplines. Guided students through intensive, peer-led workshops of their writing.

Engaging in Public Discourse (English 108), Purdue University, 1 section, Aug.-Dec. 2014.
Designed curriculum for an accelerated first-year composition course with service learning component. Partnered with Westminster Village retirement community to produce audio recorded and printed oral histories of local residents. Guided students in thematically editing interviews.

First-Year Composition (English 106), Purdue University, 7 sections, Aug. 2011-Dec. 2014. Designed curriculum to introduce first-year students to academic writing, with an emphasis on the intersection of genre and new media studies. Students composed in both established genres (literacy narratives, research essays) and remediated genres (blogs, social media profiles).

WRITING CENTER EXPERIENCE

Writing Across the Curriculum / Workshop Coordinator, Purdue Writing Lab, Aug. 2015-May 2016. Developed and coordinated workshops in academic writing across the university, mentored consultants in delivering workshops, and consulted with faculty on writing needs.

Online Writing Lab (OWL) Mail Coordinator, Purdue Writing Lab, Jan.-May 2015. Trained and supervised graduate consultants in answering 1059 short email queries on citation, grammar, and writing. Maintained email database and contributed to annual report.

Graduate Writing Consultant, Purdue Writing Lab, Aug. 2013- May 2016.
Consulted one-on-one and in small groups with Purdue students and faculty on writing-related issues. Developed and led workshops on professional and academic writing. Led conversation groups for second-language and international students. Responded to email queries to the OWL.

WRITING ACROSS THE CURRICULUM EXPERIENCE

Writing Across the Curriculum / Workshop Coordinator, Writing Lab, Purdue, Aug. 2015-May 2016. Developed and coordinated workshops in academic writing across the university, mentored consultants in delivering workshops, and consulted with faculty on writing needs.

Writing Across the Curriculum Coordinator, Animal Sciences, Purdue, Aug. 2014-May 2015. Oversaw WAC curriculum and led workshops, lectures and presentations with co-coordinator for upper-level undergraduate animal breeding course. Evaluated student work and assessed course outcomes.

HONORS, GRANTS AND AWARDS

Grace L. Smart Award for Best Graduate Paper on Rhetoric and Composition, Purdue, Apr. 2014.
Purdue Research Foundation Dissertation Fellowship, Summer 2015.
Purdue University Office of Engagement Service Learning Grant, Spring 2013.
Quintilian Award, Top 10% of Teaching Evaluations in Introductory Composition, Purdue, Spring 2012.

PUBLICATIONS, PRESENTATIONS AND WORKSHOPS

Publications

"Multimodal Assessment as Sensemaking: Beyond Rubrics to Frameworks." Under review by *The Journal of Writing Assessment*.

Conference Presentations: National

"Disciplining the Digital: Infrastructure, Digital Genres, and the Question of Genre Change." Rhetoric Society of America. Atlanta, GA, May 2016.

"Disciplining the Digital: The CWPA Outcomes Statement as Infrastructure for Emerging Genres." Conference on College Composition and Communication. Houston, TX, April 2016.

"New Media Assessment as Disciplinary Sensemaking: The Retrospective Recognition of Alternative Academic Work." Computers and Writing Conference. Menomonie, WI, May 2015.

"Oral History and the Challenge of Responsivity: From Interpretation to Relationship." Thomas R. Watson Conference. Louisville, KY, October 2014.

"Moving Toward Discourse Community Knowledge: Reconciling Disciplinarity and Professionalism in an Animal Science Memo Assignment." Council for Programs in Technical and Scientific Communication Conference. Colorado Springs, CO, September 2014.

Conference Presentations: Regional

"Increasing Writing Center Visibility through Digital Repositories." East Central Writing Center Association Conference. Oxford, OH, March 2014.

"A Very Fragile-Looking Earth: The Sublime Topos of Earthrise." Making Meaning: Language, Rhetoric and Enculturation. Ann Arbor, MI, November 2013.

Invited University Lectures

"Virtual Writing Lab Tour and Writing Center Pedagogy." Facilitated for Instruction and Learning 2725, "Practicum for Secondary English Education," Instructor Sarah Capello, University of Pittsburgh, on behalf of Purdue Writing Lab. November 2015.

Selected Writing Lab Workshops

"Writing Effective Business Letters." Facilitated for Krannert School of Management Professional Development Center, Purdue University. November 2015.

"Email Etiquette and Electronic Communication." Facilitated for the Accomplished Clerical Excellence (ACE) Program, Purdue University. March 2015.

"Personal Statements and Cover Letters." Facilitated for Biology 393, "Preparing for Your Future in Biology," Instructor Rex Fodrea, Purdue University. February 2015.

"Argument Development and Organization." Facilitated for Electrical Engineering 590, "Practical Systems Thinking," Dr. Dan Dumbacher, Purdue University. January 2015.

"Introduction to the Purdue Writing Lab and OWL." Facilitated for the Thesis and Dissertation Office, Purdue University. August 2014.

"Resources for Service Learning." Facilitated for Introductory Composition at Purdue (ICaP) Program, Purdue University. December 2013.

"Writing Engineering Journal Articles." Facilitated for the Official Mechanical Engineering Graduate Association (OMEGA), Purdue University. November 2013.

COMMUNITY ENGAGEMENT

Oral History Project, Aug.-Dec. 2014.
Developed with English 108 students on behalf of Westminster Village, West Lafayette, IN. Partnered with local retirement community to produce audio recorded and printed oral histories of local residents.

Community Needs Assessment, Jan.-June 2013.
Developed with Dan Kenzie, Luke Redington, Carrie Grant and Jennifer Bay on behalf of Area IV Agency on Aging and Community Action, Lafayette, IN. Designed electronic and print survey to assess met, undermet and unmet resident needs. Presented analysis of results in report.

Cancer, Community and Culture Colloquia with **Purdue Oncological** Sciences, Aug.-Dec. 2013.
Collaborated with faculty and students in designing first-year writing curriculum to explore human responses to cancer through literature and the arts. Participated in public outreach events.

SECONDARY TEACHING EXPERIENCE

Language Arts Teacher, Dayton High School, OR, Nov. 2008- June 2009.
Taught dual-credit college composition for Chemeketa Community College. Earned high marks in principal and superintendent evaluations for intellectually engaging instruction.

Language Arts Teacher, Chino Valley High School, AZ, Aug. 2005- June 2008.
Served as Department Head from Aug. 2006 to June 2008. Led interdepartmental Literacy Team to promote literacy across the curriculum. Mentored first-year colleagues in designing their own curricula. Taught dual-credit college composition for Yavapai College, Aug. 2006 to June 2008.

PROFESSIONAL SERVICE

Founding Member, Writing Lab Digital Repository Steering Committee, 2014.
Rater, Introductory Composition Assessment Committee, 2014-2015.
Elected Member, English Department Excellence in Teaching Committee, 2013-2014.
"UR@" Syllabus Approach Co-Leader and Webmaster, 2013-2014.
Member, Service Learning Initiatives Committee, 2014.
Member, Pedagogical Initiatives Committee, 2013-2014.

PROFESSIONAL MEMBERSHIPS

National Council of Teachers of English
Council of Writing Program Administrators
WPA-Go
Rhetoric Society of America—Purdue Chapter

SELECTED COURSEWORK

Rhetoric and Composition
Introduction to Composition Theory
Classical Rhetoric
Modern Rhetoric
Issues in Composition Studies: Postmodernism
Empirical Research in Writing
Contemporary Composition Theory
Seminar in Public Rhetoric
Minority Rhetorics
Cultural Studies and Composition

Writing Program Administration and Curriculum Development
Seminar in Writing Assessment
Institutional Rhetoric
Curriculum and Inquiry in Language Arts
Experiential Learning and Engagement Theory
Independent Reading in Curriculum Development

Second Language Studies
Theoretical Foundations in Second Language Studies

REFERENCES

Patricia A. Sullivan
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